NAVAL POSTGRADUATE SCHOOL
MONTEREY, CALIFORNIA

THESIS

A DATABASE APPROACH TO MAINTAINING THE INFORMATION TECHNOLOGY MAGEMENT GROUP FACULTY RESEARCH CATALOG ON THE WORLD WIDE WEB

by

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Thesis Advisor: Hemant K. Bhargava

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The logic for a multi-user relational database approach to managing the research catalog is addressed. A semantic object model and a relational diagram are developed to create a conceptual design for the database. Next, the application process and description of the common gateway interface (CGI) scripts are presented. Chapter four displays and discusses the catalog's major user interfaces. Finally, this thesis concludes with a plan for using the system and recommendations for further improvements.

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A DATABASE APPROACH TO MAINTAINING THE INFORMATION TECHNOLOGY MANAGEMENT GROUP FACULTY RESEARCH CATALOG ON THE WORLD WIDE WEB

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of the requirements for the degree of

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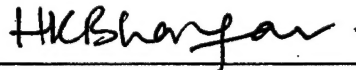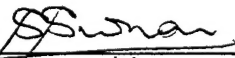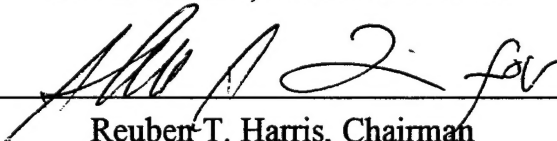
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ABSTRACT

This thesis documents the development of an on-line information technology management (ITM) research catalog that can be accessed by DOD and DON agencies or other interested parties via the World Wide Web. The on-line research catalog allows the ITM professors at the Naval Postgraduate School (NPS) to quickly and easily maintain their own research information regardless of their operating platform.

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TABLE OF CONTENTS

I. INTRODUCTION

This thesis documents the design and implementation of an on-line Faculty Research Catalog for the Information Technology Management (ITM) Group of the Systems Management (SM) Department at the Naval Postgraduate School (NPS). The on-line research catalog contains significant research information by ITM professors and is accessed via the World Wide Web (WWW).

A. BACKGROUND

A recent graduate of NPS, Barbara Franklin, did a thesis in which she collected and consolidated the ITM professors' diverse backgrounds and various research interests in an attractive brochure. The goal of the brochure is to provide research information to the many geographically dispersed DOD/DON agencies and solicit research sponsors for further research opportunities. This brochure is in a hardcopy and electronic form. The electronic form currently resides as a series of static web pages on the WWW.

B. PROBLEM DEFINITION

The current research catalog does not allow the ITM professors to have ownership and easily maintain their respective pages in the brochure. Consequently, these static pages have not been updated since their inception last September and are quickly becoming obsolete. In addition, since the catalog also exists as a series of web pages, there is no central repository to contain the data. As a result, the catalog contains redundant information. Most of the redundancy occurs between the faculty research pages, research areas and recent publications' sections of the catalog.

For instance, it is common for ITM professors to co-author a publication. This same publication may appear on their respective research pages as well as the other two earlier mentioned sections.

C. OBJECTIVE

The research catalog consists of common fields of information that needs to be maintained (add, modify, and delete); this makes the catalog the ideal candidate to store its information in a relational database. The database must reside on a server that will provide an acceptable response time.

All of the ITM professors have access to the internet. The internet uses a protocol called TCP/IP that allows access to the WWW regardless of the users operating platform. For this reason the on-line research catalog is a WWW client/server application that allows ITM professors to easily and immediately maintain their own research information and have it available for world wide access. Figure 1 depicts the above process.
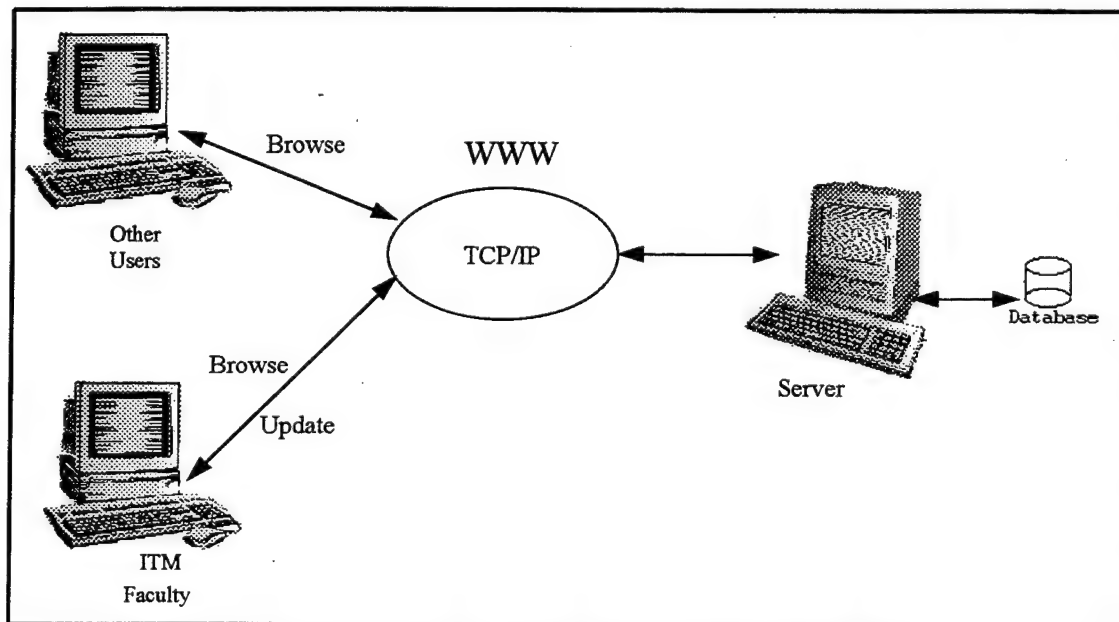
Figure 1. WWW Client/Sever Model for the On-line Research Catalog

D. METHODOLOGY

A review of the existing ITM group faculty research catalog was conducted to familiarize the author with the format. Next, selected ITM faculty members were personally interviewed to obtain additional information and user requirements. The author chose Delphi, an object-oriented language, to be the interface between the user and the database. A context diagram and data flow diagrams were developed to depict the process of maintaining the ITM research catalog. Finally, a semantic object model and relational diagram were created to design the database.

The author's recent educational background in systems analysis and design methods, relational databases, and HTML proved to be extremely helpful in the development of the on-line research catalog application. The author assumed the roles of ITM faculty member, other users and system administrator in the development of the application.

II. THE DESIGN AND IMPLEMENTATION MODELS

This chapter describes the semantic object model as a database design model and its conversion to the relational model for implementation.

A. THE SEMANTIC OBJECT MODEL

The research catalog database was designed using SALSA, a data modeling tool. The semantic object model of the data maintained by the research catalog is shown in Figure 2. Below is a brief description of each semantic object. A semantic object is a representation of some identifiable things in the users' work environment about which he wants to maintain[Ref. 1].

- Faculty_Account: Gives authorization for faculty members to access the database.

- Faculty: Contain detailed information about each faculty member.

- Research_Page: Documents the research interests of a faculty member.

- Publication: The publications that a faculty member written.

- Journal: A subset of the Publications object.

- Book: A subset of the Publications object.

- Other_Pub: A subset of the Publications object.

- Faculty_Research_Area: Research categories that broadly describe research common to several professors.

- Research_Subarea: Narrower descriptions of some of the broader research areas.

- Research_Center/Lab: Provides a description of each center or laboratory, current research topics, and a point of contact.

- Sponsor: Identify recent sponsors of the ITM professors.

- Sysad_Account: Contains account information on the person who monitors and maintains the entire contents of the database.
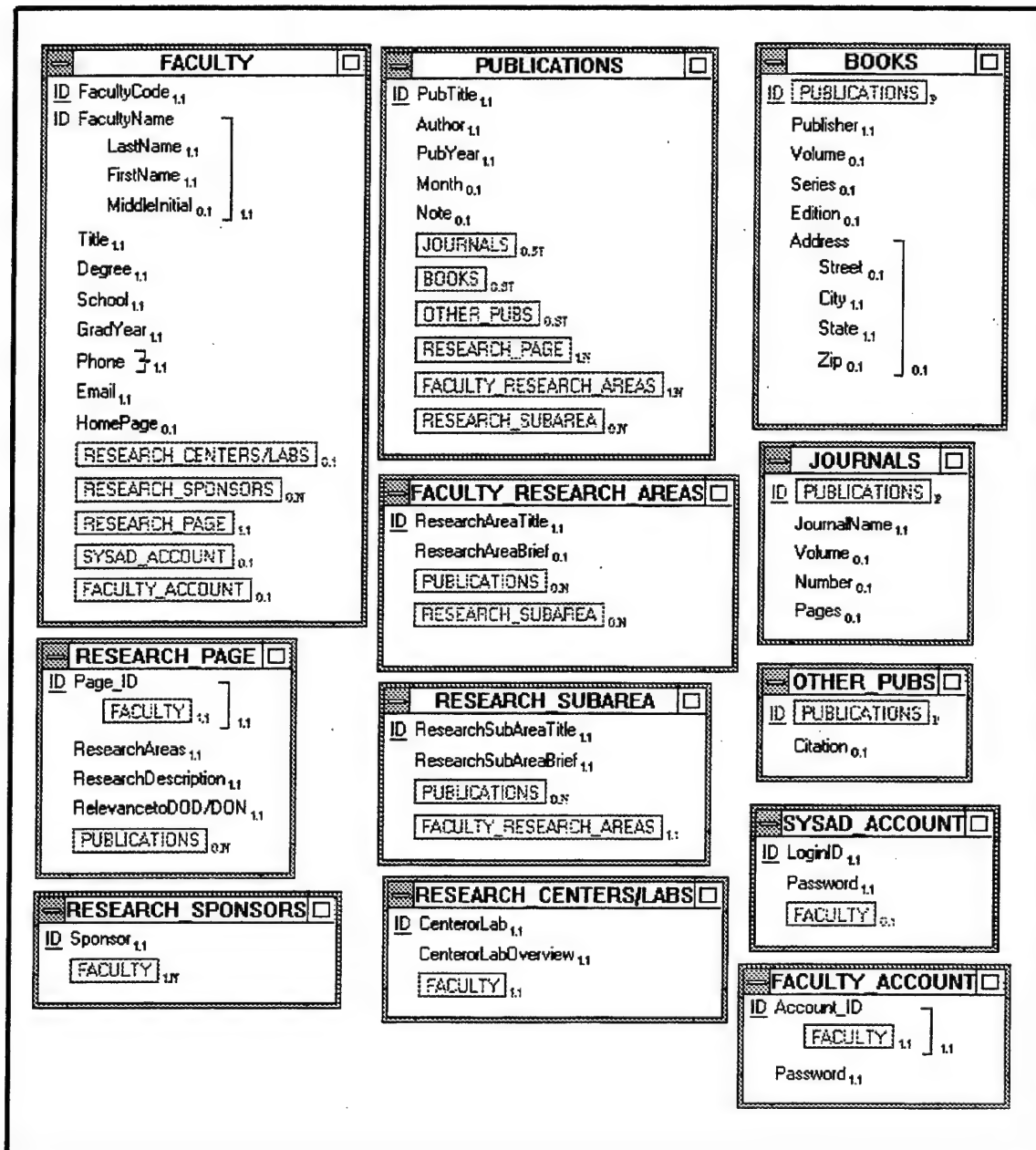
Figure 2. Semantic Object Model

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B. THE RELATIONAL MODEL

The semantic object model cannot be directly implemented into a database. SALSA provides a method to generate a database schema from a semantic object model. A database schema defines a database's structure, its tables, relationships, domains, and business rules [Ref. 1].

The relational model is a particular way of structuring and processing a database. It shows in an understandable way how the database data is stored as tables and their relationship to one another. Figure 3 shows the data that is stored and the relationship among the rows that represents tables of the database.
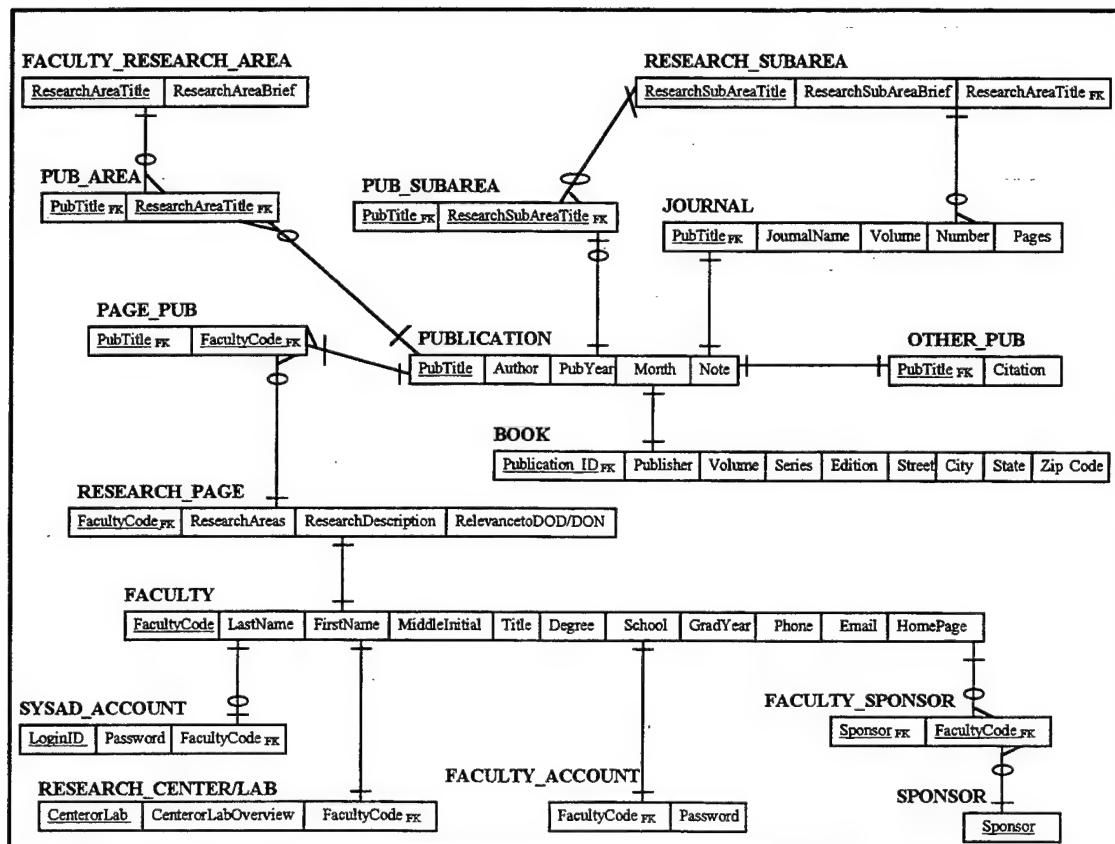
Figure 3. Relational Diagram of the Database

The complexity of the database is clearly represented in Figure 3. For instance, a publication can be a journal, book, or other publication type and can have one or more authors that may or may not all be ITM professors at NPS. Therefore, the best approach to uniquely identify a publication is by its title. Another reason for the complexity of the database is the same publication can appear on one or more faculty's research page as well as the research areas/subareas. This is because a research area can have subareas and the same publication can exist in a research area as well as a subarea of a different research area.

III. APPLICATION PROCESS

This chapter discusses the contents and process of the ITM on-line research catalog application. It concludes with a description of the various CGI scripts that comprises the catalog.

A. APPLICATION CONTENTS

The database content of the on-line research catalog consists of 5 sections: faculty research pages, faculty research areas, research centers and laboratories, recent research sponsors, and recent publications. A discussion of each section is presented below.

The faculty research page provides professional information about each ITM professor. It identifies and describes their research specialty, explains the relevance of their research to DOD/DON, and list their pertinent research publications.

The faculty research areas provide brief descriptions of the ITM group's research efforts. Some research areas are too broad to adequately describe some of the professor's research efforts and are broken into subareas. The research areas and subareas (unbulleted items) are arranged as follows:

- Database Management Systems

- Decision Support and Expert Systems

     Decision Making in Dynamic Environments

     Decision Support Systems

     Instructional Multimedia Systems

- Model Management

- Networks and Communications

  Distributed Systems and Computer Networks

  Telecommunication Systems

- Software Engineering and Applications Development

  Application Development

  Software Engineering and Project Management

  Software Metrics

  Software Reliability

The research centers and laboratories' section provide a description of each ITM center or lab. It explains why each center or lab was formed, and list a point of contact.

The research sponsors section gives recognition to sponsors of recent research projects. Sponsors are listed in alphabetical order.

The recent publications' section displays a listing of all recent publications by the ITM group. This section consists of the publications from all the faculty research pages.

B. DATA FLOW DIAGRAMS

This section uses data flow diagrams (DFDs) to depict the flow of data through the system and the processes that are performed by the system. As shown in Figures 4 and 5, the on-line research catalog is designed for three types of users: ITM professors, system administrator, and other WWW clients. The ITM professors and system administrator both have query and update privileges. The other WWW clients have only query privilege.
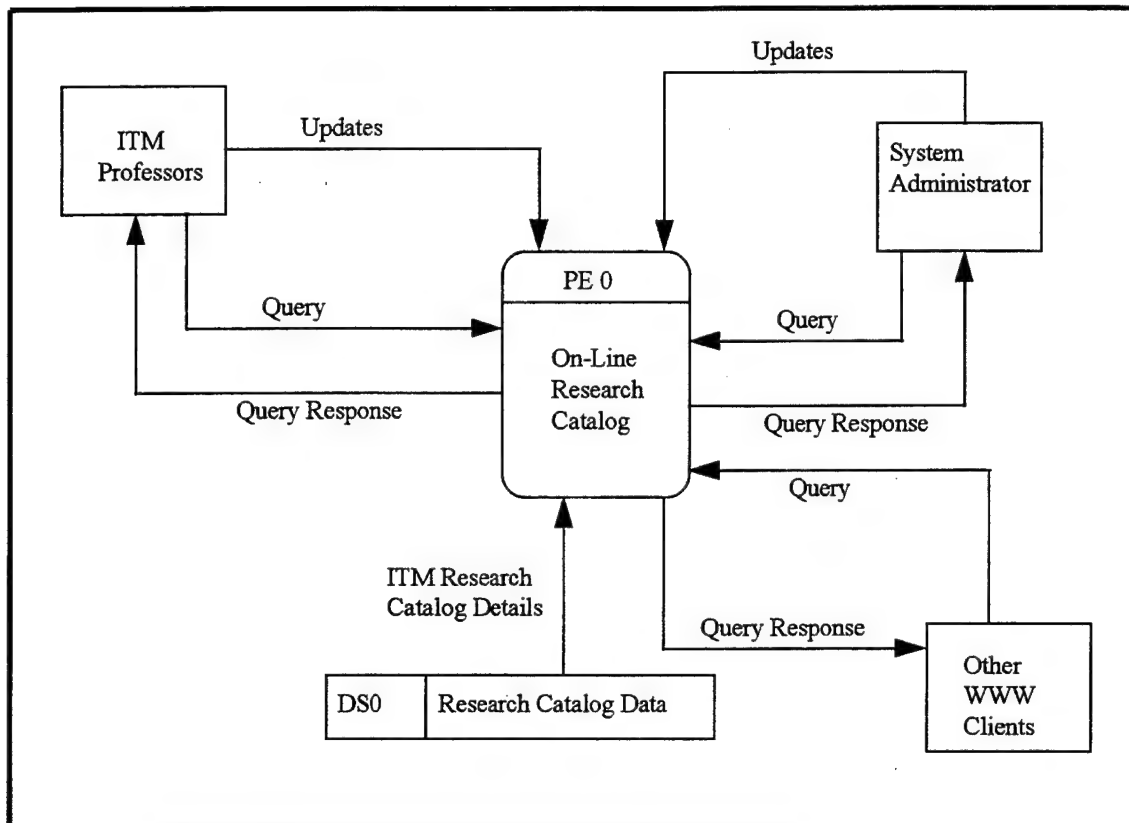
Figure 4. Context Diagram For ITM Research Catalog
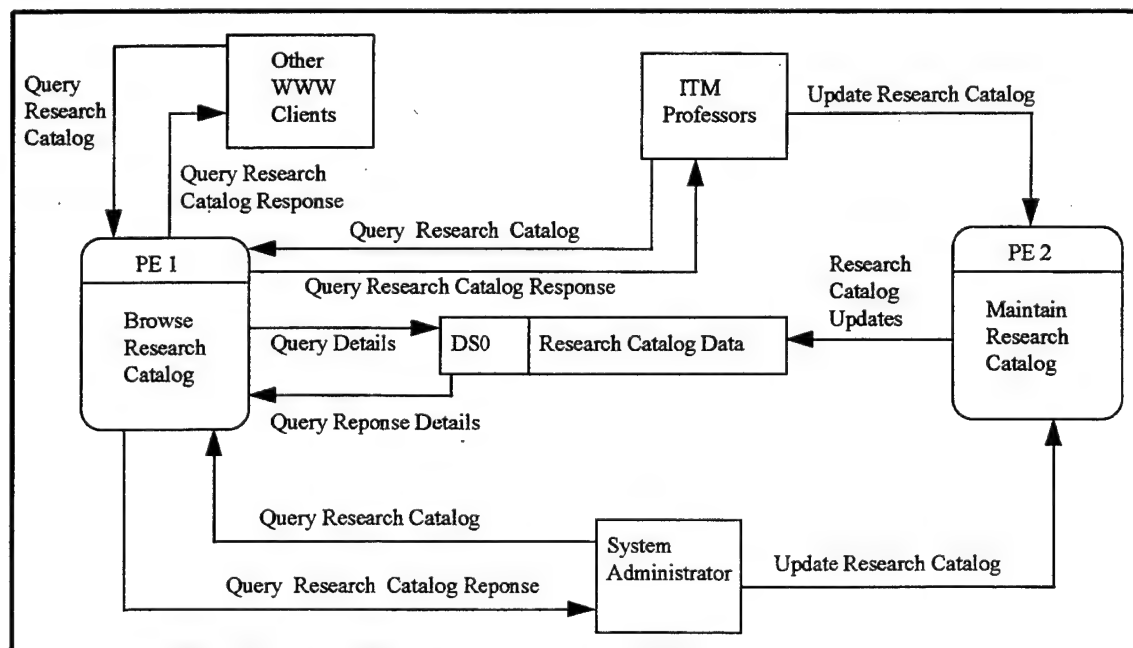
Figure 5. Overview DFD For ITM Research Catalog

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The two types of users that will maintain the research catalog are the system administrator and ITM professors. Figure 6 shows that the ITM professors can only maintain certain parts of the catalog, whereas, the system administrator can maintain the entire catalog. A major user requirement of the catalog is to allow a professor to maintain information that specifically relates to his research page. In order to do this, state information about each professor passes between CGI scripts using a hidden field. A hidden field is an HTML form option that can pass data to CGI scripts without requiring the user to actually enter the data. The other areas of Figure 6, except for maintain systems account, are considered common areas, e.g., relate to more than one professor. For this reason, the system administrator is the only person allowed to update those areas for the purpose of keeping system integrity.
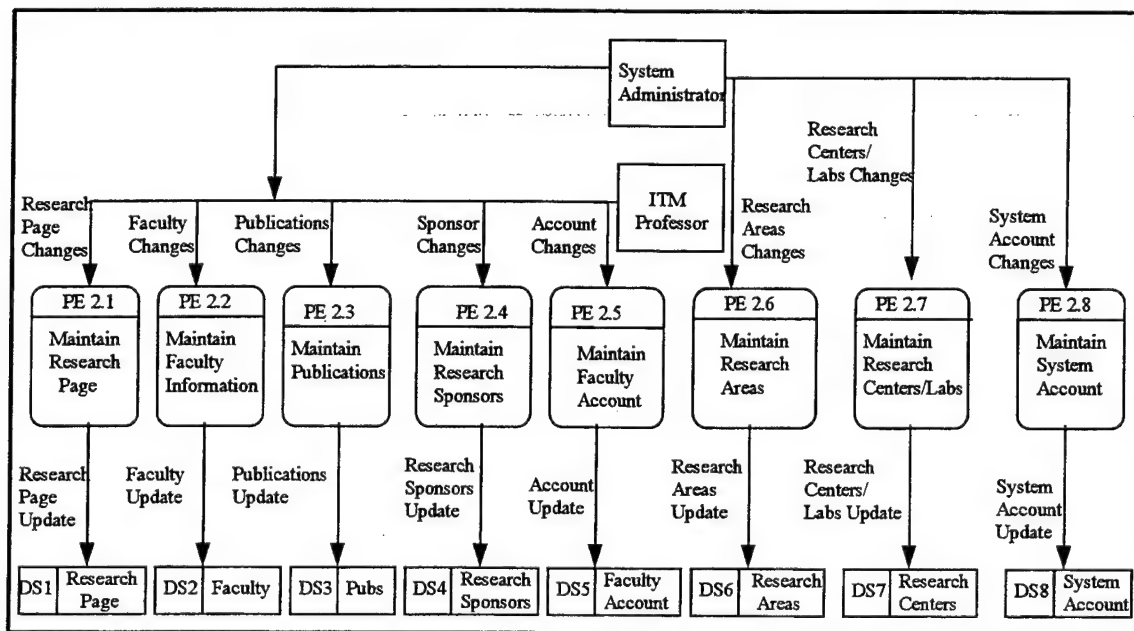
Figure 6. Middle Level DFD For ITM Research Catalog

Figure 7 shows the add, modify, and delete research page processes. What is not shown from the figure is a professor must include his faculty information when he adds a research page and if he deletes a research page, he also deletes his faculty information. This is done to prevent a research page from existing without its respective faculty information. Although faculty information is part of a research page, modification of a research page does not include modification of faculty information, that is a separate process as shown in Figure 8.
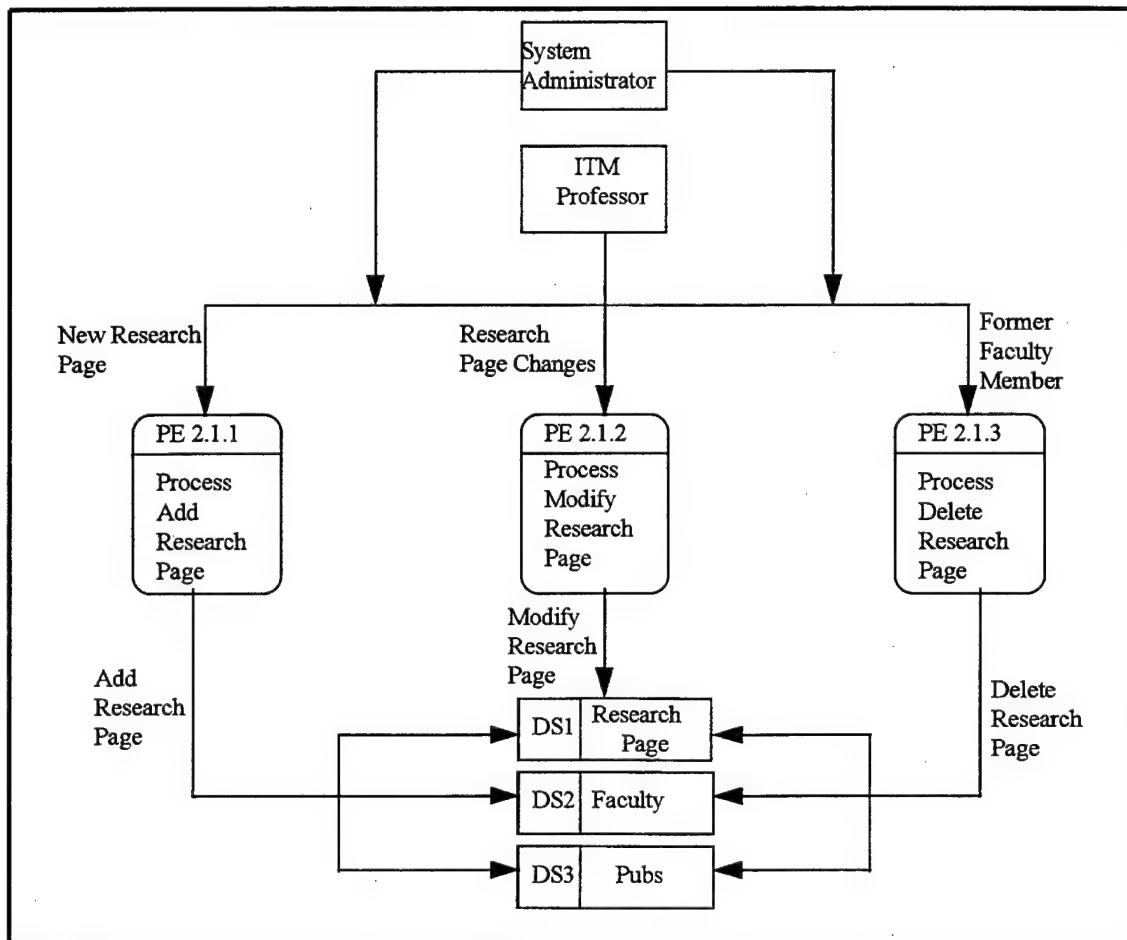
Figure 7. Primitive Level DFD For Maintaing a Research Page

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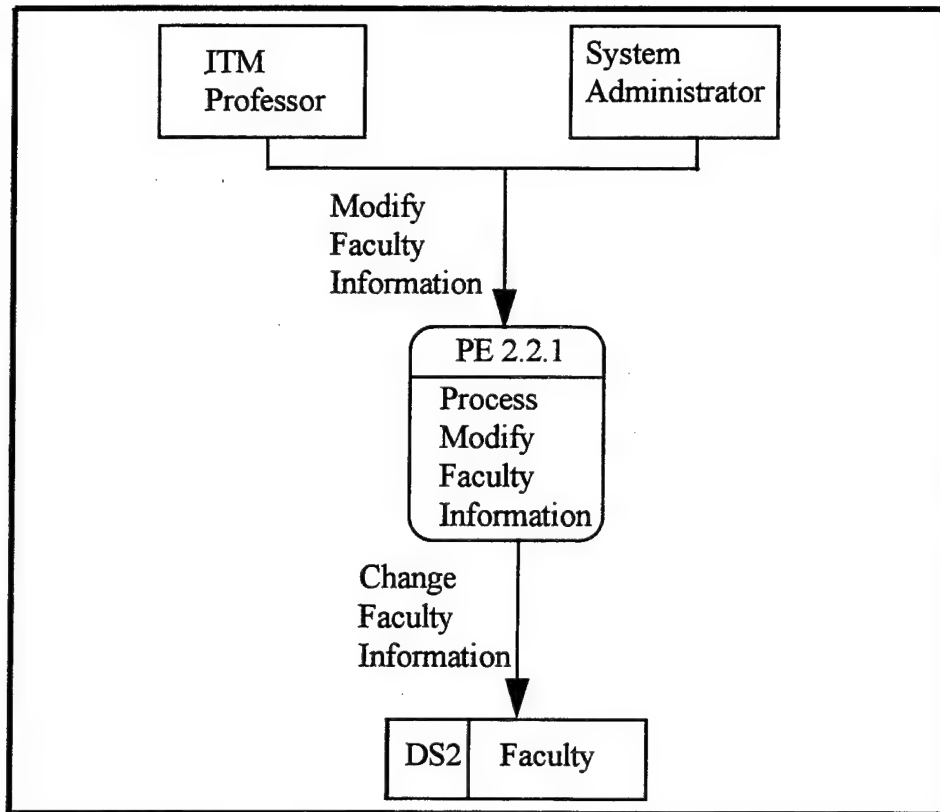
Figure 8. Primitive Level DFD For Maintaing Faculty Information

Figure 9 shows the publication process. A professor can add or delete a

publication only from his research page and desired research areas. He can not completely

delete a publication entirely from the research catalog. The logic for this is best explained

using the following scenario. Professor 1 may have co-authored a publication with

professor 2 who has the publication on his research page. If professor 1 is allowed to

delete the publication entirely, than it will affect professor 2's research page. Only the

system administrator can delete a publication entirely from the catalog assuming all

authors involved agree. There is no publication modification process because the title of

the publication is its key and cannot be modified.

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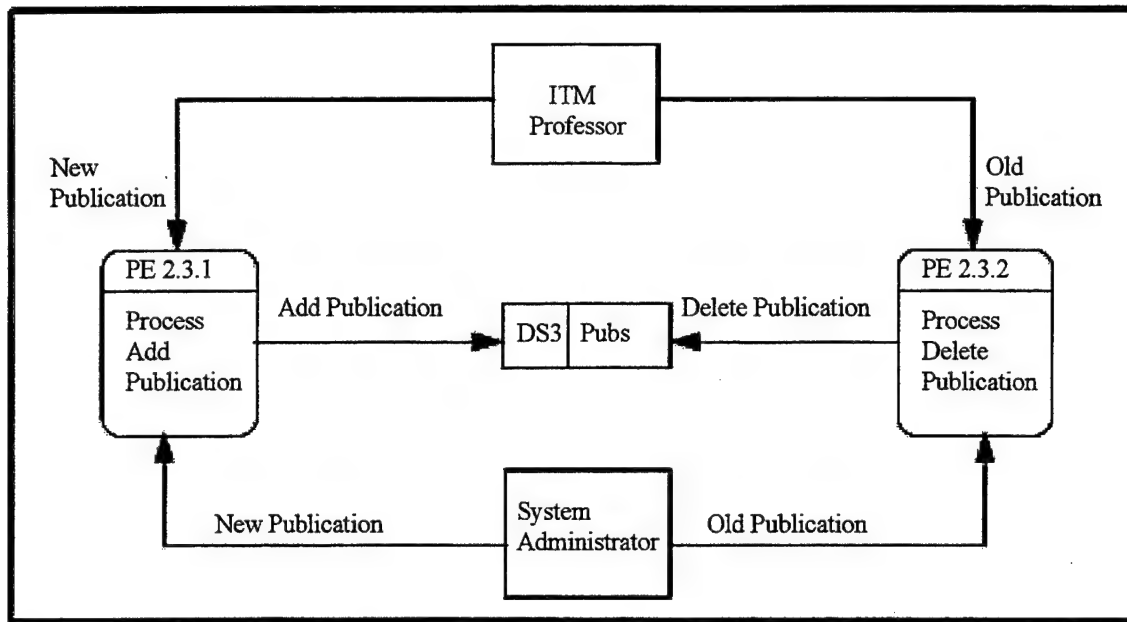
Figure 9. Primitive Level DFD For Maintaining Publications

One of the objectives of the on-line research catalog is to attract sponsors to financially assist the ITM professors in their research efforts. Each professor can add and delete his respective sponsors, Figure 10.
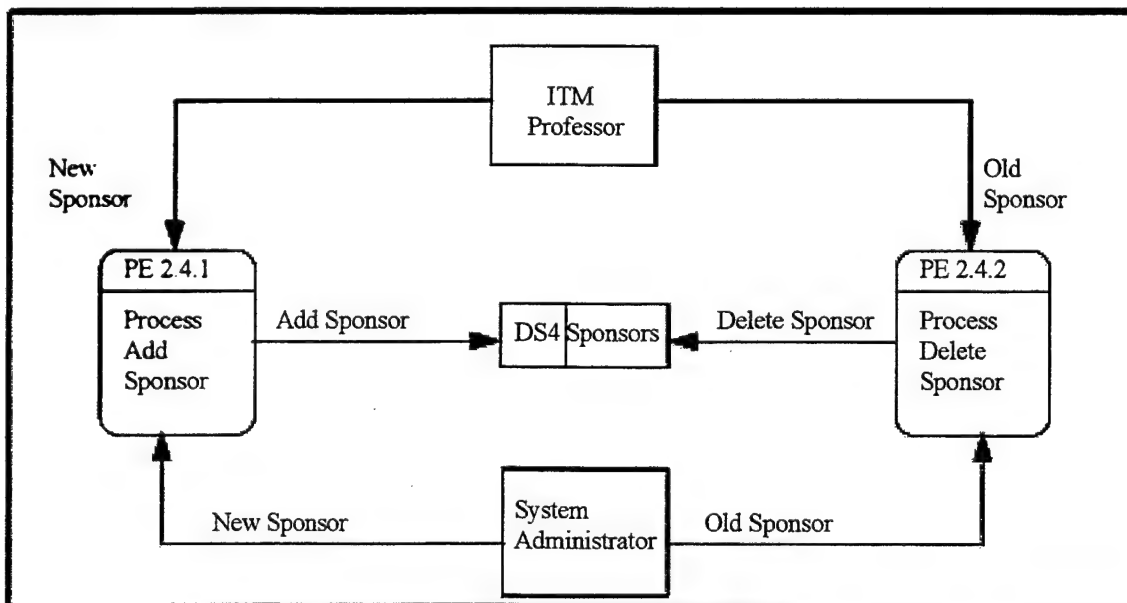
Figure 10. Primitive Level DFD For Maintaining Sponsors

A professor must have an account in order to maintain his own research page. An account contains a professor's unique faculty code and password that he enters to log into the system. The system administrator is the only person that can add or delete an account for a professor, Figure 11. Once a professor has an account, he can modify it, Figure 12. Modifying a faculty account only entails changing the password; the faculty code cannot be changed. If a professor's account is deleted, he can no longer log into the catalog to maintain his research information. Therefore, the system administrator should only delete a faculty account on the departure of the respective professor from the ITM group.
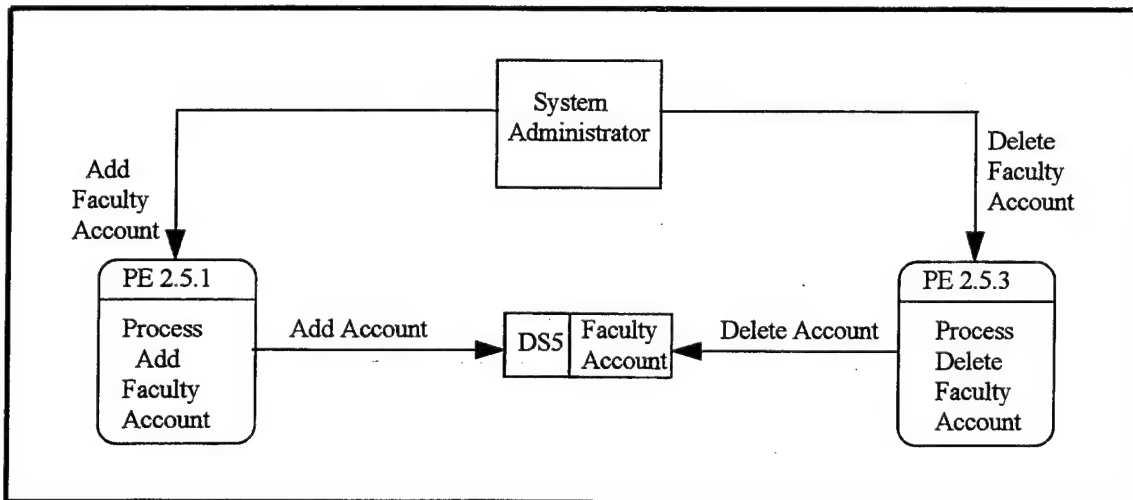
Figure 11. Primitive Level DFD For Maintaining Faculty Account
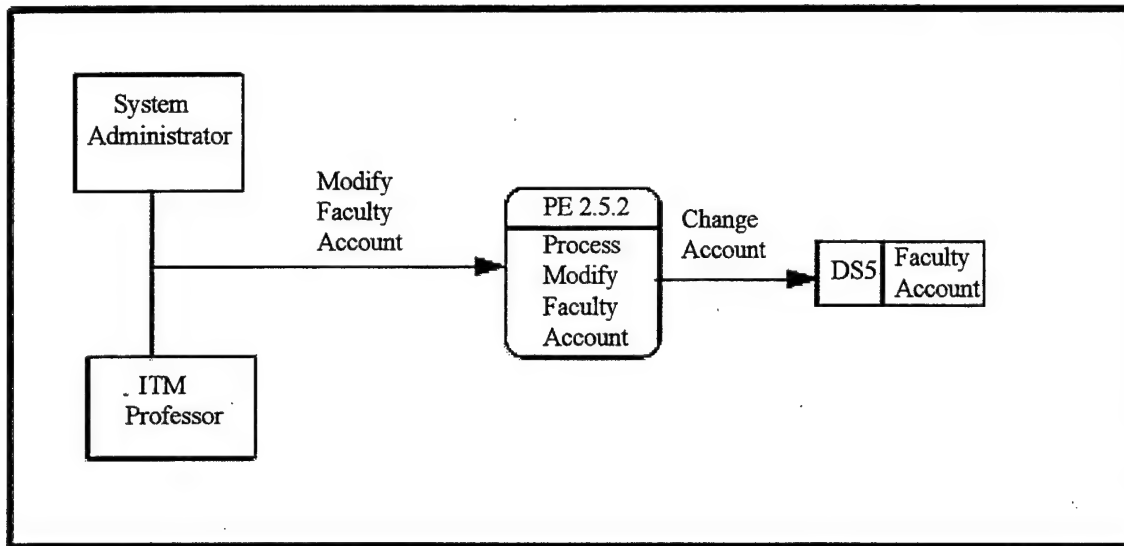
Figure 12. Primitive Level DFD For Maintaing Faculty Account

The remaining Figures, 13-15, are only processes that are only maintained by the system administrator and are self-explanatory.
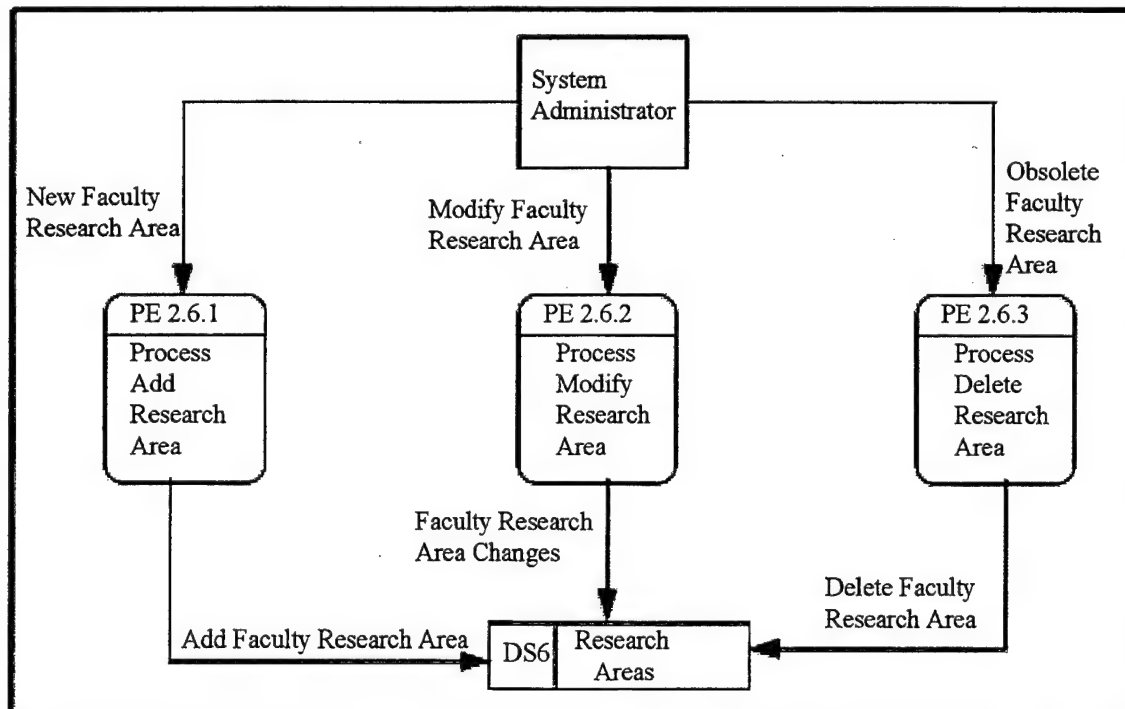
Figure 13. Primitive Level DFD For Maintaining System Account
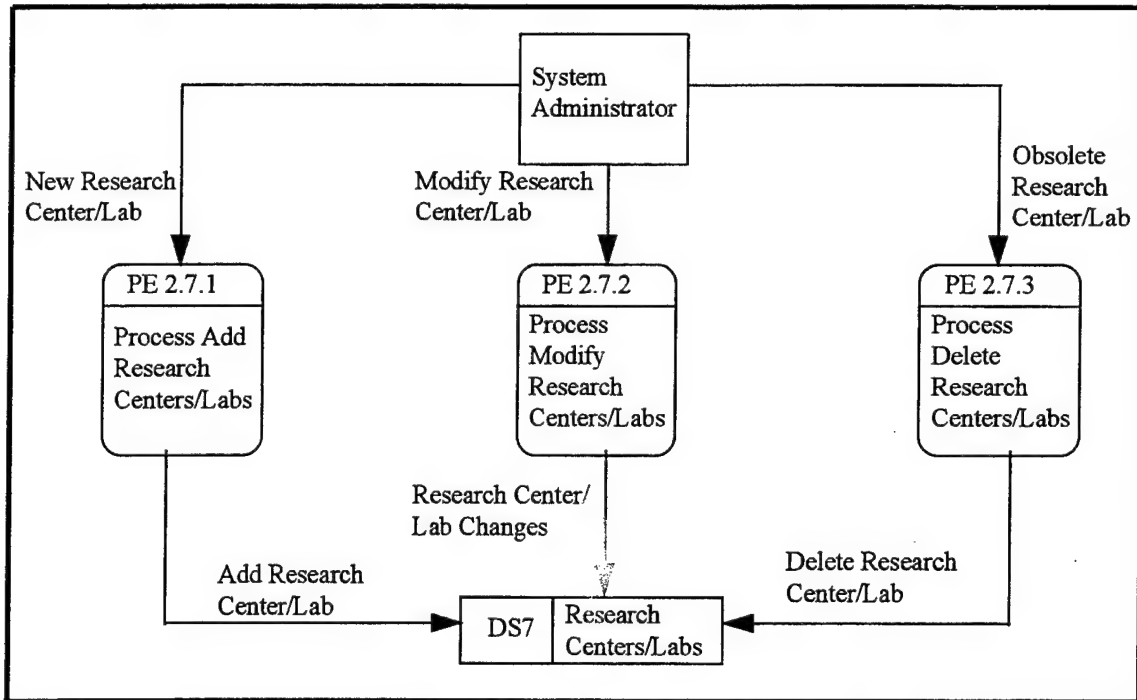
Figure 14. Primitive Level DFD For Maintaining Research Centers/Labs
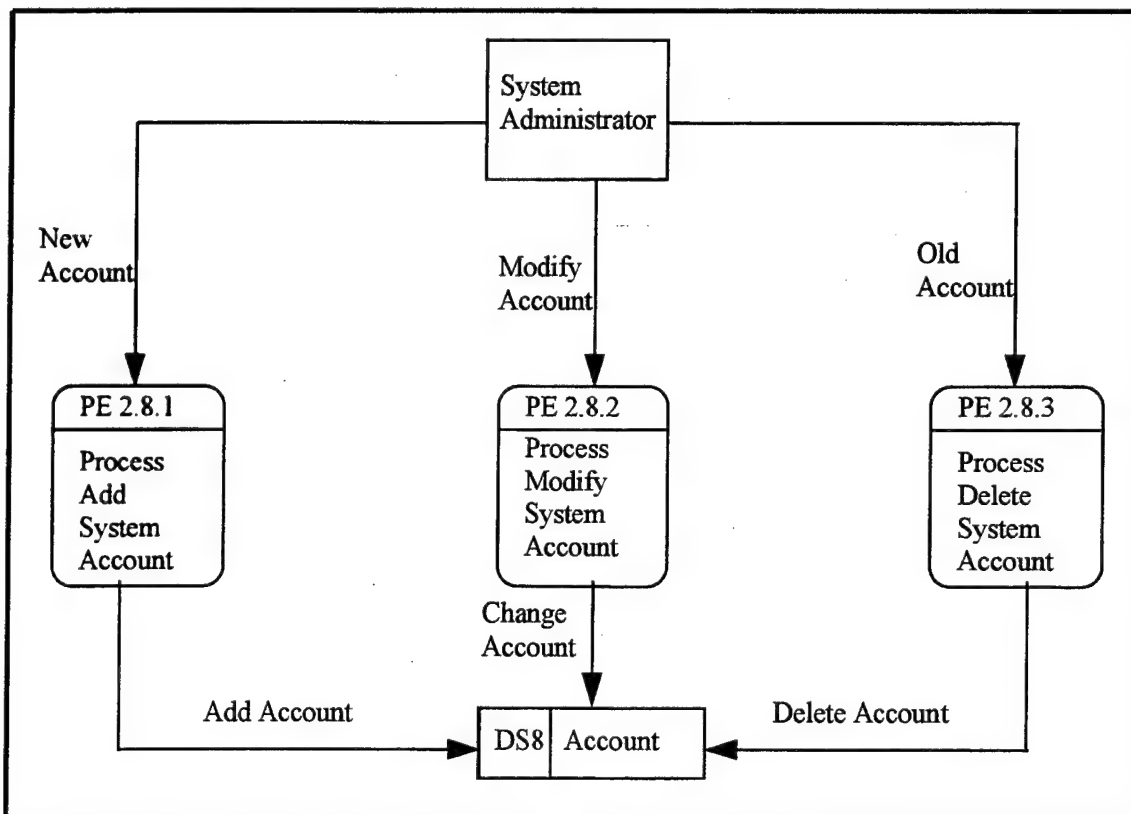
Figure 15. Primitive Level DFD For Maintaing System Account

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C. CGI SCRIPTS DESCRIPTION

CGI scripts are short programs that execute in real time and reside in a special directory of a web server. They lend themselves particularly well to the task of accessing a database. CGI scripts are written in different programming languages. The on-line research catalog scripts are written in Delphi and can be categorized into the following groups: add, modify, browse, and delete.

1. Add Scripts

These scripts display an HTML input form to collect information on what the user wants to add, i.e., a research page, publication, etc., to the database. Once the information is collected another form accepts the data and adds it to the appropriate tables in the database.

2. Modify Scripts

These scripts use an HTML form to display current information about the item the users want to update. The user can make any desired changes on the form. Once submitted, it is received by another script that takes this new data and modifies the appropriate tables.

3. Browse Scripts

The browse scripts do not accept any data, just displays it. The browse research centers/labs are the only browse scripts that have links to other HTML pages.

4. Delete Scripts

There are two types of delete scripts: one that permanently removes the information from the database and the other just removes it from being displayed. The latter applies only in the case of publications. For example, a publication can be deleted from a research page and/or research area. The publication still exists in the database, but is removed from the selected item(s). If a publication needs to be deleted entirely from the database, only the system administrator has the privilege to perform that task.

IV. THE USER INTERFACE

This chapter describes the main user interfaces for the three different types of on-line research catalog users: WWW clients, ITM faculty, and system administrator. All users with a frames capable browser will first access the welcome page, Figure 16. Then, depending on the type of user they are, will mainly interact with one of three menus.
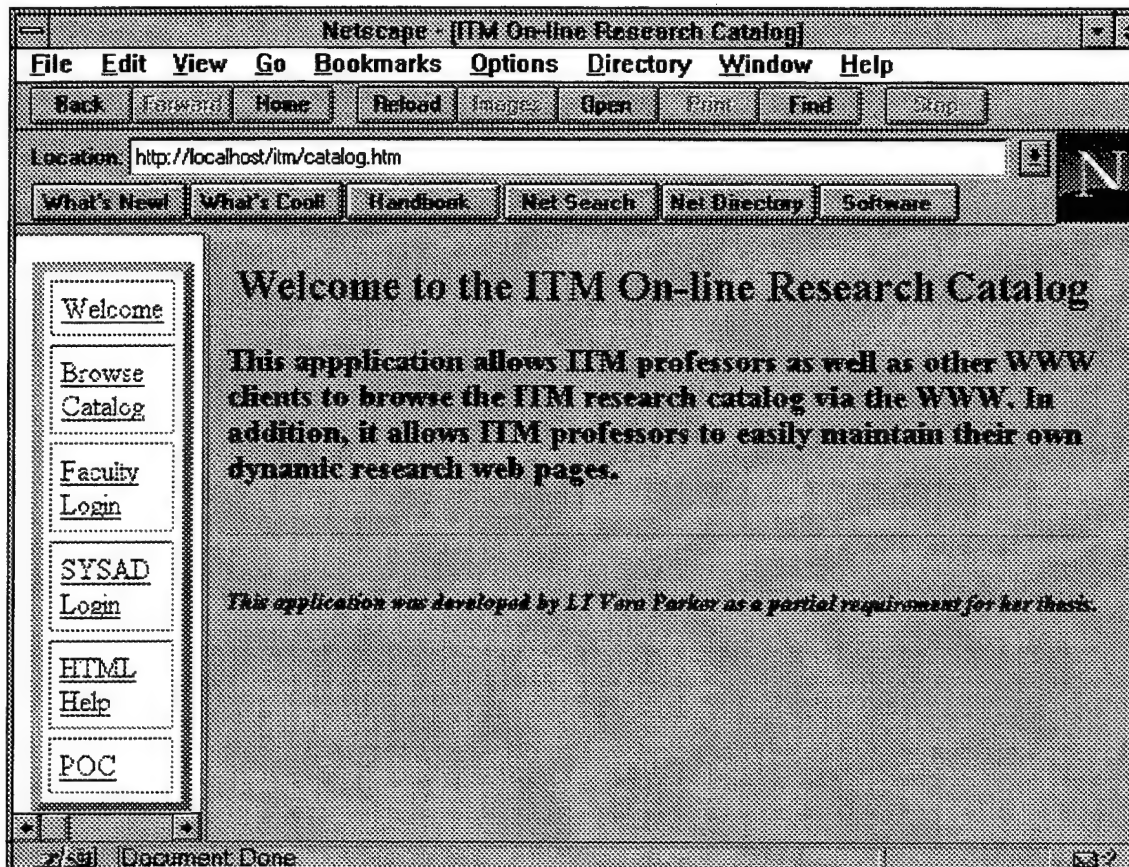
Figure 16. Welcome Menu

A. WWW CLIENTS

The WWW clients can view the contents of the research catalog by selecting the browse catalog option from Figure 16. The Browse Menu, Figure 17, is then displayed to allow the user to select the items he wants to view.

File   Edit   View   Go   Bookmarks   Options   Directory   Window   Help

| Back | Forward | Home | | Reload | Images | Open | Print | Find | | Stop | |

Location: http://localhost/cgi-win/browse/browscat.exe

| What's New! | What's Cool! | Handbook | Net Search | Net Directory | Software |

Browse Catalog Menu

ITM Faculty Research Pages

Bhargava ▼

Submit Selection

ITM Faculty Research Areas

Database Management Systems ▼

Submit Selection

Research Centers and Labs

DECISION AND INFORMATION SYSTEMS RESEARCH CENTER ▼

Submit Selection

Other Areas

Sponsors   Publications

Document Done

Figure 17. Browse Menu

If a user wants to view a faculty research page, he can select from the drop down list of ITM professors. The drop down list is in alphabetical order by last name.

The display research area option, lets a user view the several broad ITM research areas. If a user selects a research area that has subareas, he is asked to pick a research subarea to view. A research area and research subarea have identical structures, i.e., they both have a brief description and publications associated with them.

The research centers and labs describe current research projects by some of the ITM faculty. A user can view a research center or lab by selecting the browse research centers and labs option.

One of the main objectives of the research catalog is to solicit sponsors for further research. A list of the current research sponsors is viewed by selecting "Sponsors" on the Browse Menu.

The ITM professors have written many publications documenting their research knowledge and findings. They can be viewed by selecting "Publications."

B. ITM FACULTY

A professor can access the catalog to browse its contents or update his research information. If the latter, he has to log into the catalog. Each faculty member is given a faculty code and password that must be entered correctly to access the available selections on the Catalog Menu, Figure 18.
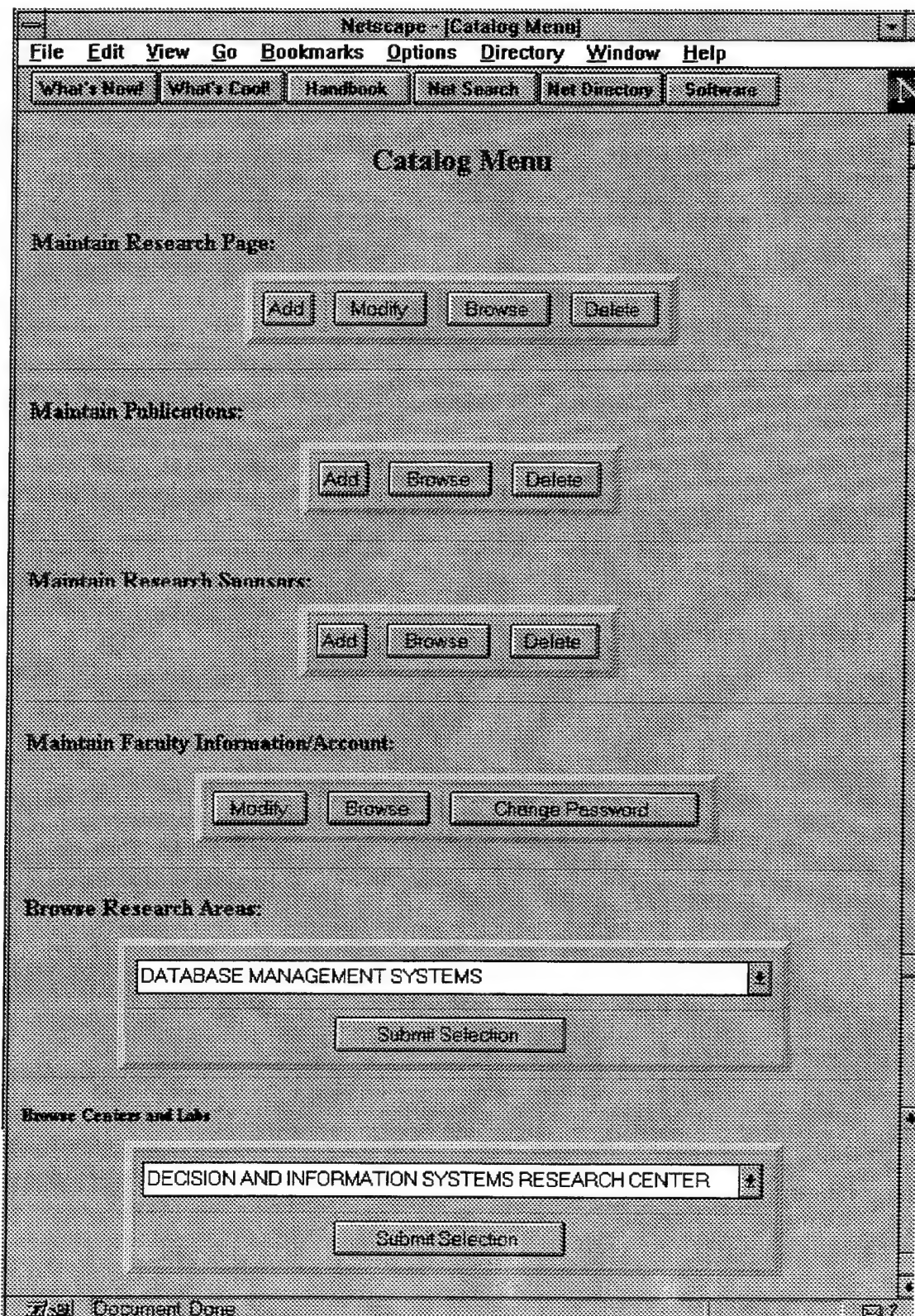
Figure 18. The Catalog Menu

C. SYSTEM ADMINISTRATOR

The system administrator must log into the catalog using his login ID and password to perform any maintenance tasks. Once he is successfully logged in, Figure 19, is displayed for him to choose his selections. The system administrator's "Main Menu" has more options available than the other two menus, because he has the capabilities of those menus as well as additional ones to maintain the catalog's integrity.
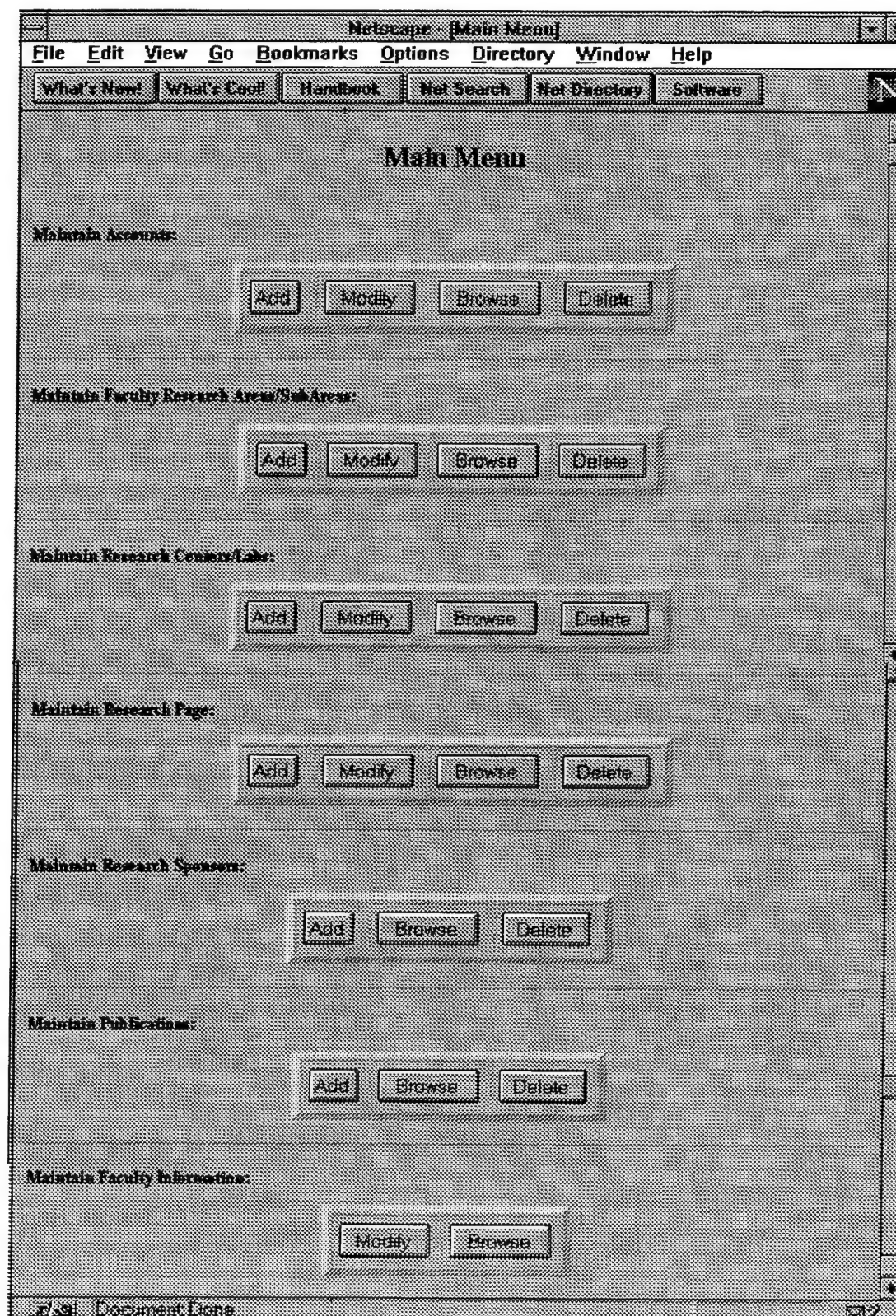
Figure 19. Main Menu

V. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

This thesis is a major improvement to Barbara Franklin's static research catalog web pages. It describes the development and implementation of a relational database approach to easily and quickly maintain the catalog. This seemed to be the most logical solution, since there are relations between the common fields that must be navigable by the system; these relations are most effectively accomplished by relational join operations. By having the application on a WWW server, it makes the research catalog possible to be viewed by potential sponsors, various DOD agencies, and millions of people who have a frames capable browser and access to the WWW. Another important advantage of having the catalog on a server is: (a) it can be maintained by the ITM faculty, and (b) can be done so, regardless of their operating platform. This is due to the TCP/IP protocol that the WWW uses. TCP/IP allows reasonably efficient and error-free transmission between different systems[Ref. 2].

The structured techniques used were critical in the design and implementation of the application. The key to the successful completion of the catalog is the perseverance and over 300 arduous hours the author spent self-learning and programming in Delphi.

The application system developed in this thesis will require the attention of a system administrator to function properly. It is recommended that Christine Smith who currently manages the web pages for the SM Department, be the system administrator for the application. Ideally, access to the catalog should occur via a link from the SM Department's home page. This would provide the best means for the ITM professors and

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other WWW clients to use the system. Next, the professors need to be informed about the system and given an account. Once this is done, the professors can use the system at their leisure. The author does not anticipate any need for formal training on how to use the system; the users' interfaces are pretty intuitive. The professors should notify the system administrator if they have any questions, problems, or changes they desire that only the system administrator can perform.

B. RECOMMENDATIONS

Future work is needed to make the on-line research catalog an even better product. The current catalog does not use dynamic SQL statements or has search capabilities. Dynamic SQL statements are statements that are not bound at design-time, but instead are bound when executed by using parameterized SQL statements[Ref. 3]. Parameterized queries give you more flexibility in varying the condition on which you base your SQL statements[Ref. 3]. A search feature would greatly assist users in immediately finding the exact information they want. As the system stands now, a user has to browse through the catalog to ascertain if it contains any information he desires. Also, counters regarding the number of times the catalog pages have been accessed would provide statistical information on the exposure of the research catalog.

APPENDIX. CGI SCRIPTS

A. WWW CLIENTS SCRIPTS

1. Browse Catalog Menu Script

unit Browcat1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, Cgi, DB, DBTables;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Query1: TQuery;
    DataSource2: TDataSource;
    Query2: TQuery;
    DataSource3: TDataSource;
    Query3: TQuery;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
begin
 with CGIEnvData1 do

 begin

```
{required when this program runs under WebSite}
webSiteINIFilename := paramstr(1);
application.onException := cgiErrorHandler;
application.processMessages;

createStdout;
sendPrologue;

{standard header information}
 send( '<HTML><HEAD>' );
 sendTitle( 'Browse Catalog Menu' );
 send( '</HEAD><BODY BGCOLOR="ADEAEA">' );
 send ('<center><H1>Browse Catalog Menu</H1></center>');

{List items that a user can browse}
sendHR;
send('<H3>ITM Faculty Research Pages</H3>');

send('<center>');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<FORM METHOD = POST ACTION= ');
send('"http://131.120.39.65/cgi-win/browse/dsp_pge.exe">');
send('<TR>');
send('<TD ALIGN="CENTER"><SELECT NAME="FacultyCode" TYPE="text" SIZE=1>');

with Query1 do    {List faculty options by last name}
   begin
     close;
     SQL.Add('SELECT FacultyCode, LastName');
     SQL.Add('FROM Faculty ');
     SQL.Add('ORDER BY LastName');
     open;
     first;  {puts cursor on first record in answer table}

   while not EOF do
      begin
        send('<OPTION VALUE= "'+FieldByName('FacultyCode').AsString+'">');
        send(FieldByName('LastName').AsString);
        next;  {puts cursor on next record}
      end;
      close;
   end;  {End Query 1}
```

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```
send('</SELECT></TD></TR>');

send('<TR><TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Submit Selection" ALIGN="MIDDLE">');
send('</TD></FORM></TABLE>');
send('</center>');

sendHR;

send('<H3> ITM Faculty Research Areas</H3>');

send('<center>');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<FORM METHOD = POST ACTION= ');
send('"http://131.120.39.65/cgi-win/browse/dsp_area.exe">');
send('<TR>');
send('<TD ALIGN="CENTER"><SELECT NAME="ResearchAreaTitle" TYPE="text"
SIZE=1>');

with Query2 do       {List Research Areas Options}
   begin
    close;
    SQL.Add('SELECT DISTINCT ResearchAreaTitle');
    SQL.Add('FROM RES_AREA ');
    open;
    first;  {puts cursor on first record in answer table}

   while not EOF do
      begin
       send('<OPTION VALUE= "'+FieldByName('ResearchAreaTitle').AsString+'">');
       send(FieldByName('ResearchAreaTitle').AsString);
       next;  {puts cursor on next record}
      end;
     close;
   end;   {End Query 2}

send('</SELECT></TD></TR>');

send('<TR><TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Submit Selection" ALIGN="MIDDLE">');
send('</TD></FORM></TABLE>');
send('</center>');
```

```
sendHR;

send('<H3>Research Centers and Labs</H3>');

send('<center>');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<FORM METHOD = POST ACTION= ');
send('"http://131.120.39.65/cgi-win/browse/brs_labs.exe">');
send('<TR>');
send('<TD ALIGN="CENTER"><SELECT NAME="CenterorLab" TYPE="text" SIZE=1>');

with Query3 do      {List Research Centers And Labs Options}
   begin
    close;
    SQL.Add('SELECT CenterorLab');
    SQL.Add('FROM RES_CENT ');
    open;
    first;  {puts cursor on first record in answer table}

    while not EOF do
     begin
       send('<OPTION VALUE= "'+FieldByName('CenterorLab').AsString+'">');
       send(FieldByName('CenterorLab').AsString);
       next;  {puts cursor on next record}
     end;
    close;
   end;   {End Query 3}

   send('</SELECT></TD></TR>');

send('<TR><TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Submit Selection" ALIGN="MIDDLE">');
send('</TD></FORM></TABLE>');
send('</center>');

sendHR;

send('<H3>Other Areas</H3>');

send('<CENTER> ');
send('<TABLE BORDER=5 CELLPADDING=5>');
```

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```
    send('<TR>');
    send('<FORM METHOD = POST  ACTION= ');
    send('"http://131.120.39.65/cgi-win/browse/brs_spon.exe">');
    send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT
VALUE="Sponsors"></TD></FORM>');

    send('<FORM METHOD = POST  ACTION= ');
    send('"http://131.120.39.65/cgi-win/browse/brs_pubs.exe">');
    send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT
VALUE="Publications"></TD></FORM>');

    send('</TR></TABLE></CENTER>');

    send( '</BODY></HTML>' );
    closeStdout;
    closeAPP(application);
  end;
end;

end.
```

2. Browse ITM Faculty Research Page

```
unit Dsp_pge1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgidb, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    CGIDB1: TCGIDB;
    DataSource1: TDataSource;
    Query1: TQuery;
    CGIDB2: TCGIDB;
    DataSource2: TDataSource;
    Query2: TQuery;
    CGIDB3: TCGIDB;
    DataSource3: TDataSource;
    Query3: TQuery;
    CGIDB4: TCGIDB;
    DataSource4: TDataSource;
    Query4: TQuery;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
  FacultyCode : string;
```

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```
begin

with CGIEnvData1 do
  begin

    {required when this program runs under WebSite}
    websiteINIFilename := paramstr(1);
    application.onException := cgiErrorHandler;
    application.processMessages;

    createStdout;
    sendPrologue;

    FacultyCode := GetSmallField('FacultyCode');

              {build research page using join of necessary tables}
    with query1 do
      begin
      close;
      SQL.clear;
      SQL.Add('SELECT DISTINCT * ');
      SQL.Add('FROM FACULTY,RES_PAGE');
      SQL.Add('WHERE RES_PAGE.FacultyCode = FACULTY.FacultyCode ' );
      SQL.Add('AND RES_PAGE.FacultyCode = "' + FacultyCode +'"');
      open;

      send( '<HTML><HEAD>' );
      sendTitle( 'Display Research Page' );
      send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

      send('<center><H1>ITM Faculty Research Page</h1></center>');
      if FacultyCode = 'SM/Ah' then
        send('<IMG ALIGN=Left SRC="http://131.120.39.65/ITM/Pictures/Ah.gif">')
      else if FacultyCode = 'SM/Bd' then
        send('<IMG ALIGN=Left SRC="http://131.120.39.65/ITM/Pictures/Bd.gif">')
      else if FacultyCode = 'SM/Bh' then
        send('<IMG ALIGN=Left SRC="http://131.120.39.65/ITM/Pictures/Bh.gif">')
      else if FacultyCode = 'SM/Bu' then
        send('<IMG ALIGN=Left SRC="http://131.120.39.65/ITM/Pictures/Bu.gif">')
      else if FacultyCode = 'SM/Dk' then
        send('<IMG ALIGN=Left SRC="http://131.120.39.65/ITM/Pictures/Dk.gif">')
      else if FacultyCode = 'SM/Ey' then
        send('<IMG ALIGN=Left SRC="http://131.120.39.65/ITM/Pictures/Ey.gif">')
```

```
else if FacultyCode = 'SM/Fw' then
  send('<IMG ALIGN=Left SRC="http://131.120.39.65/ITM/Pictures/Fw.gif">')
else if FacultyCode = 'SM/Hg' then
  send('<IMG ALIGN=Left SRC="http://131.120.39.65/ITM/Pictures/Hg.gif">')
else if FacultyCode = 'SM/Ka' then
  send('<IMG ALIGN=Left SRC="http://131.120.39.65/ITM/Pictures/Ka.gif">')
else if FacultyCode = 'SM/Ra' then
  send('<IMG ALIGN=Left SRC="http://131.120.39.65/ITM/Pictures/Ra.gif">')
else if FacultyCode = 'SM/Se' then
  send('<IMG ALIGN=Left SRC="http://131.120.39.65/ITM/Pictures/Se.gif">')
else if FacultyCode = 'SM/Ss' then
  send('<IMG ALIGN=Left SRC="http://131.120.39.65/ITM/Pictures/Ss.gif">')
else if FacultyCode = 'SM/Sr' then
  send('<IMG ALIGN=Left SRC="http://131.120.39.65/ITM/Pictures/Sr.gif">');

send('<UL>');
send(FieldByName('LastName').AsString);
send(FieldByName('FirstName').AsString);
send(FieldByName('MiddleInitial').AsString);
send('<BR>');
send(FieldByName('Title').AsString);
send('<BR>');
send(FieldByName('Degree').AsString);
send(', ');
send(FieldByName('School').AsString);
send(', ');
send(FieldByName('GradYear').AsString);
send('<BR>');
send(FieldByName('PhoneAreaCode').AsString);
send(FieldByName('PhoneLocalNumber').AsString);
send('<BR>');
send(FieldByName('Email').AsString);
send('<BR>');
send(FieldByName('HomePage').AsString);
send('</UL><BR CLEAR=LEFT>');

send('<BR>');
send('<P>');
send('<B><H3>Research Areas</H3></B>');
CGIDB1.SendMemo(FieldByName('ResearchAreas'));

send('<P>');
send('<B><H3>Research Description</H3></B>');
```

```
       CGIDB1.SendMemo(FieldByName('ResearchDescription'));

       send('<P>');
       send('<B><H3>Relevance to DOD/DON</H3></B>');
       CGIDB1.SendMemo(FieldByName('RelevancetoDOD/DON'));

  Query1.close;
end;   {Query 1}

Send('<P>');
Send('<B><H3>Recent Publications</H3></B>');

With query2 do
  begin
   close;
   SQL.clear;
   SQL.Add('SELECT * ');
   SQL.Add('FROM PAGEPUB,PUBS,JOURNAL');
   SQL.Add('WHERE PAGEPUB.PubTitle = PUBS.PubTitle');
   SQL.Add('AND PUBS.PubTitle = JOURNAL.PubTitle');
   SQL.Add('AND PAGEPUB.FacultyCode = '" + FacultyCode +'"');
   open;
   first;  {puts cursor on first record in answer table}

   while not EOF do
    begin
       CGIDB2.SendMemo(FieldByName('Author'));
       send(',');
       send('"');
       send(FieldByName('PubTitle').AsString);
       send('",');
       send('<i>');
       send(FieldByName('JournalName').AsString);
       send('</i>');
       If FieldByname('Volume').AsString <> "then
       begin
       send('Vol');
       send(FieldByName('Volume').AsString);
       end;
       If FieldByname('Number').AsString <> "then
       begin
       send('No');
       send(FieldByName('Number').AsString);
```

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```
            end;
            send(FieldByName('PubMonth').AsString);
            send(FieldByName('PubYear').AsString);
            If FieldByname('Pages').AsString <> "then
            begin
            send(':');
            send(FieldByName('Pages').AsString);
            end;
            send(FieldByName('Note').AsString);

            send('<BR>');
            send('<BR>');
            next;  {puts cursor on next record}
        end;
    Query2.close;
end;    {Query 2}

With query3 do
    begin
        close;
        SQL.clear;
        SQL.Add('SELECT * ');
        SQL.Add('FROM PAGEPUB,PUBS,OTHERPUB');
        SQL.Add('WHERE PAGEPUB.PubTitle = PUBS.PubTitle');
        SQL.Add('AND PUBS.PubTitle = OTHERPUB.PubTitle');
        SQL.Add('AND PAGEPUB.FacultyCode = "' + FacultyCode +'"');
        open;
        first;  {puts cursor on first record in answer table}
        while not EOF do
        begin
            CGIDB3.SendMemo(FieldByName('Author'));
            send(',');
            send('"');
            send(FieldByName('PubTitle').AsString);
            send('",');
            CGIDB3.SendMemo(FieldByName('Citation'));
            send(FieldByName('PubMonth').AsString);
            send(FieldByName('PubYear').AsString);

            send('<BR>');
            send('<BR>');
            next;  {puts cursor on next record}
        end;
```

```
      Query3.close;
    end;  {Query 3}

  With query4 do
    begin
      close;
      SQL.clear;
      SQL.Add('SELECT * ');
      SQL.Add('FROM PAGEPUB,PUBS,BOOKS');
      SQL.Add('WHERE PAGEPUB.PubTitle = PUBS.PubTitle');
      SQL.Add('AND PUBS.PubTitle = BOOKS.PubTitle');
      SQL.Add('AND PAGEPUB.FacultyCode = "' + FacultyCode +'"');
      open;
      first;  {puts cursor on first record in answer table}

    while not EOF do
      begin
        CGIDB4.SendMemo(FieldByName('Author'));
        send(',');
        send('"');
        send(FieldByName('PubTitle').AsString);
        send('",');
        send(FieldByName('Volume').AsString);
        send(FieldByName('Series').AsString);
        send(FieldByName('Edition').AsString);
        send(FieldByName('Publisher').AsString);
        send(FieldByName('Street').AsString);
        send(FieldByName('City').AsString);
        send(FieldByName('State').AsString);
        send(FieldByName('Zip').AsString);
        send(FieldByName('PubMonth').AsString);
        send(FieldByName('PubYear').AsString);

        send('<BR>');
        send('<BR>');
        next;  {puts cursor on next record}
      end;
    Query4.close;
  end;  {Query4}

send('<p>');
sendHR;
send('<p>');
```

```
{send user back to Browse Menu}
send('<CENTER>');
send('<FORM method=post action="'+
 'http://131.120.39.65/cgi-win/browse/browscat.exe">');
send('<input type="submit" value="Browse Catalog Menu">');
send('</form>');
send('</CENTER>');

send( '</BODY></HTML>' );

closeStdout;
closeApp( application );

    end;
  end;

end.
```

3. Browse Research Areas

```
unit Dspareas;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgidb, Cgi;

type
 TForm1 = class(TForm)
   CGIEnvData1: TCGIEnvData;
   CGIDB1: TCGIDB;
   DataSource1: TDataSource;
   Query1: TQuery;
   CGIDB2: TCGIDB;
   DataSource2: TDataSource;
   Query2: TQuery;
   DataSource3: TDataSource;
   Table1: TTable;
   CGIDB3: TCGIDB;
   DataSource4: TDataSource;
   Query3: TQuery;
   CGIDB4: TCGIDB;
   DataSource5: TDataSource;
   Query4: TQuery;
   procedure FormCreate(Sender: TObject);
 private
   { Private declarations }
 public
   { Public declarations }
 end;

var
 Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
```

```pascal
ResearchAreaTitle : string;
SubAreasExist    : string;

begin

with CGIEnvData1 do
  begin

    {required when this program runs under WebSite}
    websiteINIFilename := paramstr(1);
    application.onException := cgiErrorHandler;
    application.processMessages;

    createStdout;
    sendPrologue;

    ResearchAreaTitle := GetSmallField('ResearchAreaTitle');

    send( '<HTML><HEAD>' );
    sendTitle( 'Display Research Areas' );
    send( '</HEAD><BODY BGCOLOR="ADEAEA">' );
    send('<center><H1>ITM Faculty Research Areas</h1></center>');

    with Table1 do   {Search Table for record to be modified}
        begin
          open;
          FindKey([ResearchAreaTitle]);
        end;

      SubAreasExist := Table1.FieldByName('SubAreas').AsString;
    Table1.close;

If SubAreasExist = 'Yes' then

  begin
    send('<h3>The research area you selected to browse has research ');
    send('subareas.  Choose the research subarea you want to browse.</h3>');
    send('<P>');

    send('<center>');
    send('<TABLE BORDER=5 CELLPADDING=5>');

    send('<FORM METHOD = POST ACTION= ');
```

```
    send('"http://131.120.39.65/cgi-win/browse/pub2sub.exe">');
    send('<TR>');

    send('<TD><SELECT NAME="ResearchSubAreaTitle" TYPE="text" SIZE=1>');

with Query1 do
  begin
   close;
   SQL.Add('SELECT RES_SUBA.ResearchSubAreaTitle');
   SQL.Add('FROM RES_SUBA');
   SQL.Add('WHERE RES_SUBA.ResearchAreaTitle =  "' + ResearchAreaTitle + '"');
   open;
   first;  {puts cursor on first record in answer table}

   while not EOF do
    begin
      send('<OPTION VALUE= "'+FieldByName('ResearchSubAreaTitle').AsString+'">');
      send(FieldByName('ResearchSubAreaTitle').AsString);
      next;  {puts cursor on next record}
    end;
   Query1.close;
  end;

 send('</SELECT></TD></TR>');
 send('</TABLE>');
 send('<INPUT TYPE=SUBMIT VALUE="Submit Information">');
 send('</FORM>');

 send('<P>');

 send('<FORM method=post action="'+
 'http://131.120.39.65/cgi-win/browse/browscat.exe">');
 send('<input type="submit" value="Cancel, Return to Browse Catalog Menu">');
 send('</form>');
 send('</CENTER>');
end

else   {no subareas}

begin  {build research page using join of necessary tables}
  with query1 do
   begin
    close;
```

```
      SQL.clear;
      SQL.Add('SELECT DISTINCT * ');
      SQL.Add('FROM RES_AREA');
      SQL.Add('WHERE RES_AREA.ResearchAreaTitle = "' + ResearchAreaTitle +'"');
      open;

      send('<B>');
      send(FieldByName('ResearchAreaTitle').AsString);
      send('</B>');
      send('<P>');
      CGIDB1.SendMemo(FieldByName('ResearchAreaBrief'));
      send('<P>');
     close;
    end;

send('<H4>Publications:</H4>');
send('<P>');

With query2 do
  begin
   close;
   SQL.clear;
   SQL.Add('SELECT * ');
   SQL.Add('FROM PUBAREA,PUBS,JOURNAL');
   SQL.Add('WHERE PUBAREA.PubTitle = PUBS.PubTitle');
   SQL.Add('AND PUBS.PubTitle = JOURNAL.PubTitle');
   SQL.Add('AND PUBAREA.ResearchAreaTitle = "' + ResearchAreaTitle +'"');
   open;
   first;  {puts cursor on first record in answer table}

  while not EOF do
    begin
      CGIDB2.SendMemo(FieldByName('Author'));
      send(',');
      send('"');
      send(FieldByName('PubTitle').AsString);
      send('",');
      send('<i>');
      send(FieldByName('JournalName').AsString);
      send('</i>');
      If FieldByname('Volume').AsString <> "then
      begin
      send('Vol');
```

```
          send(FieldByName('Volume').AsString);
          end;
          If FieldByname('Number').AsString <> "then
          begin
          send('No');
          send(FieldByName('Number').AsString);
          end;
          send(FieldByName('PubMonth').AsString);
          send(FieldByName('PubYear').AsString);
          If FieldByname('Pages').AsString <> "then
          begin
          send(':');
          send(FieldByName('Pages').AsString);
          end;
          send(FieldByName('Note').AsString);

          send('<BR>');
          send('<BR>');
          next;  {puts cursor on next record}
      end;
   close;  {close query 2}
end;

With query3 do
 begin
  close;
  SQL.clear;
  SQL.Add('SELECT * ');
  SQL.Add('FROM PUBAREA,PUBS,BOOKS');
  SQL.Add('WHERE PUBAREA.PubTitle = PUBS.PubTitle');
  SQL.Add('AND PUBS.PubTitle = BOOKS.PubTitle');
  SQL.Add('AND PUBAREA.ResearchAreaTitle = "' + ResearchAreaTitle +'"');
  open;
  first;  {puts cursor on first record in answer table}

  while not EOF do
   begin
     CGIDB4.SendMemo(FieldByName('Author'));
     send(',');
     send('"');
     send(FieldByName('PubTitle').AsString);
     send('",');
     send(FieldByName('Volume').AsString);
```

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```
        send(FieldByName('Series').AsString);
        send(FieldByName('Edition').AsString);
        send(FieldByName('Publisher').AsString);
        send(FieldByName('Street').AsString);
        send(FieldByName('City').AsString);
        send(FieldByName('State').AsString);
        send(FieldByName('Zip').AsString);
        send(FieldByName('PubMonth').AsString);
        send(FieldByName('PubYear').AsString);

        send('<BR>');
        send('<BR>');
        next;  {puts cursor on next record}
      end;
  close;  {Query 3}
end;

With query4 do
  begin
   close;
   SQL.clear;
   SQL.Add('SELECT * ');
   SQL.Add('FROM PUBAREA,PUBS,OTHERPUB');
   SQL.Add('WHERE PUBAREA.PubTitle = PUBS.PubTitle');
   SQL.Add('AND PUBS.PubTitle = OTHERPUB.PubTitle');
   SQL.Add('AND PUBAREA.ResearchAreaTitle = "' + ResearchAreaTitle +'"');

   open;
   first;  {puts cursor on first record in answer table}
   while not EOF do
    begin
       CGIDB4.SendMemo(FieldByName('Author'));
       send(',');
       send('"');
       send(FieldByName('PubTitle').AsString);
       send('",');
       CGIDB4.SendMemo(FieldByName('Citation'));
       send(FieldByName('PubMonth').AsString);
       send(FieldByName('PubYear').AsString);

       send('<BR>');
       send('<BR>');
       next;  {puts cursor on next record}
```

```
          end;
      close;
      end;

      sendHR;
     {send user back to Browse Menu}
     send('<CENTER>');
     send('<FORM method=post action="'+
     'http://131.120.39.65/cgi-win/browse/browscat.exe">');
     send('<input type="submit" value=" Browse Menu">');
     send('</form>');
     send('</CENTER>');

   end; {End Else Part}

     send( '</BODY></HTML>' );
     closeStdout;
     closeApp( application );

   end;
   end;

end.
```

{ Browse Research SubAreas}

```
unit Pub2sub1;

interface

uses
   SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
   Forms, Dialogs, Cgidb, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
   CGIEnvData1: TCGIEnvData;
   DataSource1: TDataSource;
   Query1: TQuery;
   DataSource2: TDataSource;
   Query2: TQuery;
   CGIDB1: TCGIDB;
   CGIDB2: TCGIDB;
```

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```
    CGIDB3: TCGIDB;
    DataSource3: TDataSource;
    Query3: TQuery;
    CGIDB4: TCGIDB;
    DataSource4: TDataSource;
    Query4: TQuery;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
  ResearchSubAreaTitle : string;

begin

  with CGIEnvData1 do
    begin

      {required when this program runs under WebSite}
      websiteINIFilename := paramstr(1);
      application.onException := cgiErrorHandler;
      application.processMessages;

      createStdout;
      sendPrologue;

      ResearchSubAreaTitle := GetSmallField('ResearchSubAreaTitle');

      send( '<HTML><HEAD>' );
      sendTitle( 'Display Research SubAreas' );
      send( '</HEAD><BODY BGCOLOR="ADEAEA">' );
      send('<center><H1>ITM Faculty Research SubArea</h1></center>');
```

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```
            {build research page using join of necessary tables}
with query1 do
  begin
   close;
   SQL.clear;
   SQL.Add('SELECT DISTINCT * ');
   SQL.Add('FROM RES_SUBA');
   SQL.Add('WHERE RES_SUBA.ResearchSubAreaTitle = "' + ResearchSubAreaTitle +'"');
   open;

   send('<B>');
   send(FieldByName('ResearchSubAreaTitle').AsString);
   send('</B>');
   send('<P>');
   CGIDB1.SendMemo(FieldByName('ResearchSubAreaBrief'));
   send('<P>');
  close;
 end;

send('<H4>Publications:</H4>');
send('<P>');

 With query2 do
  begin
   close;
   SQL.clear;
   SQL.Add('SELECT * ');
   SQL.Add('FROM PUBSAREA,PUBS,JOURNAL');
   SQL.Add('WHERE PUBSAREA.PubTitle = PUBS.PubTitle');
   SQL.Add('AND PUBS.PubTitle = JOURNAL.PubTitle');
   SQL.Add('AND PUBSAREA.ResearchSubAreaTitle = "' + ResearchSubAreaTitle +'"');
   open;
   first;  {puts cursor on first record in answer table}

   while not EOF do
    begin
      CGIDB2.SendMemo(FieldByName('Author'));
      send(',');
      send('"');
      send(FieldByName('PubTitle').AsString);
      send('",');
      send('<i>');
      send(FieldByName('JournalName').AsString);
```

```
            send('</i>');
            If FieldByname('Volume').AsString <> "then
            begin
            send('Vol');
            send(FieldByName('Volume').AsString);
            end;
            If FieldByname('Number').AsString <> "then
            begin
            send('No');
            send(FieldByName('Number').AsString);
            end;
            send(FieldByName('PubMonth').AsString);
            send(FieldByName('PubYear').AsString);
            If FieldByname('Pages').AsString <> "then
            begin
            send(':');
            send(FieldByName('Pages').AsString);
            end;
            send(FieldByName('Note').AsString);

            send('<BR>');
            send('<BR>');
            next;  {puts cursor on next record}
        end;
    close;  {close query 2}
  end;

With query3 do
  begin
   close;
   SQL.clear;
   SQL.Add('SELECT * ');
   SQL.Add('FROM PUBSAREA,PUBS,BOOKS');
   SQL.Add('WHERE PUBSAREA.PubTitle = PUBS.PubTitle');
   SQL.Add('AND PUBS.PubTitle = BOOKS.PubTitle');
   SQL.Add('AND PUBSAREA.ResearchSubAreaTitle = "' + ResearchSubAreaTitle +'"');
   open;
   first;  {puts cursor on first record in answer table}

   while not EOF do
    begin
      CGIDB4.SendMemo(FieldByName('Author'));
      send(',');
```

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```
      send('"');
      send(FieldByName('PubTitle').AsString);
      send('","');
      send(FieldByName('Volume').AsString);
      send(FieldByName('Series').AsString);
      send(FieldByName('Edition').AsString);
      send(FieldByName('Publisher').AsString);
      send(FieldByName('Street').AsString);
      send(FieldByName('City').AsString);
      send(FieldByName('State').AsString);
      send(FieldByName('Zip').AsString);
      send(FieldByName('PubMonth').AsString);
      send(FieldByName('PubYear').AsString);

      send('<BR>');
      send('<BR>');
      next;  {puts cursor on next record}
    end;
  close;  {Query 3}
end;

With query4 do
 begin
  close;
  SQL.clear;
  SQL.Add('SELECT * ');
  SQL.Add('FROM PUBSAREA,PUBS,OTHERPUB');
  SQL.Add('WHERE PUBSAREA.PubTitle = PUBS.PubTitle');
  SQL.Add('AND PUBS.PubTitle = OTHERPUB.PubTitle');
  SQL.Add('AND PUBSAREA.ResearchSubAreaTitle = "' + ResearchSubAreaTitle +'"');

  open;
  first;  {puts cursor on first record in answer table}
  while not EOF do
   begin
      CGIDB4.SendMemo(FieldByName('Author'));
      send(',');
      send('"');
      send(FieldByName('PubTitle').AsString);
      send('","');
      CGIDB4.SendMemo(FieldByName('Citation'));
      send(FieldByName('PubMonth').AsString);
      send(FieldByName('PubYear').AsString);
```

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```
            send('<BR>');
            send('<BR>');
            next;  {puts cursor on next record}
          end;
      close;
    end;

   sendHR;

   {send user back to Browse Menu}
   send('<CENTER>');
   send('<FORM method=post action="'+
   'http://131.120.39.65/cgi-win/browse/browscat.exe">');
   send('<input type="submit" value=" Browse Catalog Menu">');
   send('</form>');
   send('</CENTER>');


   send( '</BODY></HTML>' );
   closeStdout;
   closeApp( application );
  end;
 end;
end.
```

4. Browse Research Centers/Labs

```
unit Brslabs;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgidb, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    CGIDB1: TCGIDB;
    DataSource1: TDataSource;
    Query1: TQuery;
    DataSource2: TDataSource;
    Query2: TQuery;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
  CenterorLab : string;

begin

with CGIEnvData1 do
  begin

    websiteINIFilename := paramstr(1);
    application.onException := cgiErrorHandler;
```

```
    application.processMessages;

    createStdout;
    sendPrologue;

    CenterorLab := GetSmallField('CenterorLab');

    send( '<HTML><HEAD>' );
    sendTitle( 'Display Research Areas' );
    send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

    with query1 do
     begin
       close;
       SQL.clear;
       SQL.Add('SELECT CenterorLab,CenterorLabOverview');
       SQL.Add('FROM RES_CENT');
       SQL.Add('WHERE RES_CENT.CenterorLab = "' + CenterorLab +'"');
       open;
       first;  {puts cursor on first record in answer table}

      while not EOF do
       begin
         send('<center><B>');
         send(FieldByName('CenterorLab').AsString);
         send('</B><P></center>');
         CGIDB1.SendMemo(FieldByName('CenterorLabOverview'));
         send('<P>');
         next;  {puts cursor on next record}
       end;
     Query1.close;
    end;

    with query2 do
     begin
       close;
       SQL.clear;
       SQL.Add('SELECT * ');
       SQL.Add('FROM FACULTY, RES_CENT');
       SQL.Add('WHERE FACULTY.FacultyCode = RES_CENT.FacultyCode');
       SQL.Add('AND RES_CENT.CenterorLab = "' + CenterorLab +'"');
       open;
       first;
```

```
     while not EOF do
       begin
         send('For additional information contact Professor ');
         send(FieldByName('FirstName').AsString);
         send(FieldByName('LastName').AsString);
         send('at ');
         send(FieldByName('PhoneAreaCode').AsString);
         send(FieldByName('PhoneLocalNumber').AsString);
         send('or ');
         send(FieldByName('Email').AsString);
         next;  {puts cursor on next record}
       end;
     Query2.close;
    end;

    sendHR;
    send('<p>');

    {send user back to Browse Menu}
    send('<CENTER>');
    send('<FORM method=post action="'+
    'http://131.120.39.65/cgi-win/browse/browscat.exe">');
    send('<input type="submit" value=" Browse Catalog Menu">');
    send('</form>');
    send('</CENTER>');

    send( '</BODY></HTML>' );

    closeStdout;
    closeApp( application );

   end;
 end;

end.
```

5. Browse Research Sponsors

unit Brsspon;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgidb, Cgi;

```
type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    CGIDB1: TCGIDB;
    DataSource1: TDataSource;
    Query1: TQuery;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
begin

  with CGIEnvData1 do
    begin

      {required when this program runs under WebSite}
      webSiteINIFilename := paramstr(1);
      application.onException := cgiErrorHandler;
      application.processMessages;

      createStdout;
      sendPrologue;
```

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```
send( '<HTML><HEAD>' );
sendTitle( 'Browse Faculty Account' );
send( '</HEAD><BODY BGCOLOR="ADEAEA"><CENTER>' );

with query1 do
  begin
    close;
    SQL.clear;
    SQL.add('SELECT Activity');
    SQL.add('From SPONSOR');
    open;
    fieldByName ( 'Activity' ).displayLabel := 'Sponsors';
  end;

  CGIDB1.drawTable;
query1.close;

  send('<P>');

  send('<FORM method=post action="'+
    'http://131.120.39.65/cgi-win/browse/browscat.exe">');
  send('<input type="submit" value="Browse Catalog Menu">');
  send('</form>');
  send('</CENTER>');

send( '</BODY></HTML>' );
closeStdout;
closeApp(application);

end;
end;


end.
```

6. Browse Publications

```
unit Brs_pub1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgidb, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    CGIDB1: TCGIDB;
    DataSource1: TDataSource;
    Query1: TQuery;
    CGIDB2: TCGIDB;
    CGIDB3: TCGIDB;
    DataSource2: TDataSource;
    DataSource3: TDataSource;
    Query2: TQuery;
    Query3: TQuery;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
begin

  with CGIEnvData1 do
  begin

    websiteINIFilename := paramstr(1);
```

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```
application.onException := cgiErrorHandler;
application.processMessages;

createStdout;
sendPrologue;

{standard header information}
send( '<HTML><HEAD>' );
sendTitle( 'Display Publications' );
send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

Send('<center><B><H3>Recent Publications</H3></B></center>');

With query1 do
  begin
   close;
   SQL.clear;
   SQL.Add('SELECT * ');
   SQL.Add('FROM PUBS,JOURNAL');
   SQL.Add('WHERE PUBS.PubTitle = JOURNAL.PubTitle');
   open;
   first;   {puts cursor on first record in answer table}

   while not EOF do
    begin
      CGIDB1.SendMemo(FieldByName('Author'));
      send(',');
      send('"');
      send(FieldByName('PubTitle').AsString);
      send('",');
      send('<i>');
      send(FieldByName('JournalName').AsString);
      send('</i>');
      If FieldByname('Volume').AsString <> "then
      begin
      send('Vol');
      send(FieldByName('Volume').AsString);
      end;
      If FieldByname('Number').AsString <> "then
      begin
      send('No');
      send(FieldByName('Number').AsString);
      end;
```

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```
              send(FieldByName('PubMonth').AsString);
              send(FieldByName('PubYear').AsString);
              If FieldByname('Pages').AsString <> "then
              begin
              send(':');
              send(FieldByName('Pages').AsString);
              end;
              send(FieldByName('Note').AsString);

              send('<BR>');
              send('<BR>');
              next;  {puts cursor on next record}
          end;
       Query1.close;
    end;    {Query 1}


With query2 do
    begin
      close;
      SQL.clear;
      SQL.Add('SELECT * ');
      SQL.Add('FROM PUBS,OTHERPUB');
      SQL.Add('WHERE PUBS.PubTitle = OTHERPUB.PubTitle');
      open;
      first;  {puts cursor on first record in answer table}
      while not EOF do
       begin
         CGIDB2.SendMemo(FieldByName('Author'));
         send(',');
         send('"');
         send(FieldByName('PubTitle').AsString);
         send('",');
         CGIDB2.SendMemo(FieldByName('Citation'));
         send(FieldByName('PubMonth').AsString);
         send(FieldByName('PubYear').AsString);

         send('<BR>');
         send('<BR>');
         next;  {puts cursor on next record}
       end;
      Query2.close;
    end;  {Query 2}
```

```
With query3 do
  begin
    close;
    SQL.clear;
    SQL.Add('SELECT * ');
    SQL.Add('FROM PUBS,BOOKS');
    SQL.Add('WHERE PUBS.PubTitle = BOOKS.PubTitle');
    open;
    first;  {puts cursor on first record in answer table}

  while not EOF do
    begin
      CGIDB3.SendMemo(FieldByName('Author'));
      send(',');
      send('"');
      send(FieldByName('PubTitle').AsString);
      send('",');
      send(FieldByName('Volume').AsString);
      send(FieldByName('Series').AsString);
      send(FieldByName('Edition').AsString);
      send(FieldByName('Publisher').AsString);
      send(FieldByName('Street').AsString);
      send(FieldByName('City').AsString);
      send(FieldByName('State').AsString);
      send(FieldByName('Zip').AsString);
      send(FieldByName('PubMonth').AsString);
      send(FieldByName('PubYear').AsString);

      send('<BR>');
      send('<BR>');
      next;  {puts cursor on next record}
    end;
  Query3.close;
 end;   {Query3}
send('<p>');
sendHR;
send('<p>');
{send user back to Browse Menu}
send('<CENTER>');
send('<FORM method=post action="'+
'http://131.120.39.65/cgi-win/browse/browscat.exe">');
send('<input type="submit" value="Browse Catalog Menu">');
send('</form>');
```

```
    send('</CENTER>');

    send( '</BODY></HTML>' );
    closeStdout;
    closeApp( application );
    end;
  end;

end.
```

B. ITM Faculty SCRIPTS

1. Catalog Menu

unit Catalog1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, Cgi, DB, DBTables;

```
type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Query1: TQuery;
    DataSource2: TDataSource;
    Query2: TQuery;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
  FacultyCode: string;
begin
  with CGIEnvData1 do

  begin
    { required when this program runs under WebSite}
    webSiteINIFilename := paramstr(1);
    application.onException := cgiErrorHandler;
```

```
application.processMessages;

createStdout;
sendPrologue;

FacultyCode := getSmallField('FacultyCode');

{standard header information}
send( '<HTML><HEAD>' );
sendTitle( 'Catalog Menu' );
send( '</HEAD><BODY BGCOLOR="ADEAEA">');
send ('<center><H1>Catalog Menu</H1></center>');

{List research catalog items that a faculty member can maintain}

 sendHR;
 send('<P>');

 send('<H2>Maintain Research Page:</H2>');

 send('<CENTER> ');
 send('<TABLE BORDER=5 CELLPADDING=5>');
 send('<TR>');
 send('<FORM METHOD = POST  ACTION= ');
 send('"http://131.120.39.65/cgi-win/faculty/apgform.exe">');
 send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
 send('<TD ALIGN="CENTER">');
 send('<INPUT TYPE=SUBMIT VALUE="Add"></TD></FORM>');

 send('<FORM METHOD = POST  ACTION= ');
 send('"http://131.120.39.65/cgi-win/faculty/mpg_show.exe">');
 send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
 send('<TD ALIGN="CENTER">');
 send('<INPUT TYPE=SUBMIT VALUE="Modify"></TD></FORM>');

 send('<FORM METHOD = POST  ACTION= ');
 send('"http://131.120.39.65/cgi-win/faculty/dsp_pg.exe">');
 send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
 send('<TD ALIGN="CENTER">');
 send('<INPUT TYPE=SUBMIT VALUE="Browse"></TD></FORM>');


 send('<FORM METHOD = POST  ACTION= ');
```

```
send('"http://131.120.39.65/cgi-win/faculty/pg_chk.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Delete"></TD></FORM>');

send('</TR></TABLE></CENTER>');

send('<P>');
sendHR;
send('<P>');

send('<H2>Maintain Publications:</H2>');

send('<CENTER> ');
send('<TABLE BORDER=5 CELLPADDING=5>');
send('<TR>');
send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/faculty/pub_rrb.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Add"></TD></FORM>');

send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/faculty/brs_pub.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Browse"></TD></FORM>');

send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/faculty/dpub_rrb.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Delete"></TD></FORM>');

send('</TR></TABLE></CENTER>');

send('<p>');
sendHR;
send('<p>');

send('<H2>Maintain Research Sponsors:</H2>');

send('<CENTER> ');
```

```
send('<TABLE BORDER=5 CELLPADDING=5>');
send('<TR>');
send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/faculty/aspon_fm.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Add"></TD></FORM>');

send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/faculty/brs_spo.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Browse"></TD></FORM>');

send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/faculty/dspo_lst.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Delete"></TD></FORM>');

send('</TR></TABLE></CENTER>');

send('<p>');
sendHR;
send('<p>');

send('<H2>Maintain Faculty Information/Account:</H2>');
send('<CENTER> ');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<TR>');
send('<FORM METHOD=POST ACTION=');
send('"http://131.120.39.65/cgi-win/faculty/mfi_form.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TD ALIGN="CENTER">');
send('<INPUT TYPE="SUBMIT" VALUE="Modify"></TD></FORM>');

send('<FORM METHOD=POST ACTION=');
send('"http://131.120.39.65/cgi-win/faculty/dsp_fac.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TD ALIGN="CENTER">');
send('<INPUT TYPE="SUBMIT" VALUE="Browse"></TD></FORM>');
```

```
send('<FORM METHOD=POST ACTION=');
send('"http://131.120.39.65/cgi-win/faculty/mfa_form.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TD ALIGN="CENTER">');
send('<INPUT TYPE="SUBMIT" VALUE="Change Password"></TD></FORM>');

send('</TR></TABLE></CENTER>');

send('<p>');
sendHR;
send('<p>');

send('<H2>Browse Research Areas:</H2>');
send('<CENTER> ');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<FORM METHOD = POST ACTION= ');
send('"http://131.120.39.65/cgi-win/faculty/brs_area.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TR>');
send('<TD ALIGN="CENTER"><SELECT NAME="ResearchAreaTitle" TYPE="text"
SIZE=1>');

with Query1 do     {List Research Area Options}
  begin
    close;
    SQL.Add('SELECT DISTINCT ResearchAreaTitle');
    SQL.Add('FROM RES_AREA ');
    open;
    first;  {puts cursor on first record in answer table}

  while not EOF do
      begin
        send('<OPTION VALUE= "'+FieldByName('ResearchAreaTitle').AsString+'">');
        send(FieldByName('ResearchAreaTitle').AsString);
        next;  {puts cursor on next record}
      end;
      close;
  end;   {End Query 1}

send('</SELECT></TD></TR>');

send('<TR><TD ALIGN="CENTER">');
```

```
send('<INPUT TYPE=SUBMIT VALUE="Submit Selection" ALIGN="MIDDLE">');
send('</TD></FORM></TABLE>');
send('</center>');

sendHR;

send('<H3>Browse Centers and Labs</H3>');

send('<center>');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<FORM METHOD = POST ACTION= ');
send('"http://131.120.39.65/cgi-win/faculty/show_lab.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TR>');
send('<TD ALIGN="CENTER"><SELECT NAME="CenterorLab" TYPE="text" SIZE=1>');

with Query2 do      {List Research Centers And Labs Options}
  begin
    close;
    SQL.Add('SELECT CenterorLab');
    SQL.Add('FROM RES_CENT ');
    open;
    first;  {puts cursor on first record in answer table}

    while not EOF do
     begin
       send('<OPTION VALUE= "'+FieldByName('CenterorLab').AsString+'">');
       send(FieldByName('CenterorLab').AsString);
       next;  {puts cursor on next record}
     end;
    close;
  end;    {End Query 2}

 send('</SELECT></TD></TR>');

send('<TR><TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Submit Selection" ALIGN="MIDDLE">');
send('</TD></FORM></TABLE>');
send('</center>');

send( '</BODY></HTML>' );
```

```
    closeStdout;
    closeAPP(application);
 end;
end;

end.
```

2. Add ITM Faculty Research Page

{Add Page Form}
unit Apgform1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, Cgi;

```
type
 TForm1 = class(TForm)
  CGIEnvData1: TCGIEnvData;
  procedure FormCreate(Sender: TObject);
 private
  { Private declarations }
 public
  { Public declarations }
 end;

var
 Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
 FacultyCode : String;

begin

 with CGIEnvData1 do
  begin
   {required when this program runs under WebSite}
   webSiteINIFilename := paramstr(1);
   application.onException := cgiErrorHandler;
   application.processMessages;

   createStdout;
   sendPrologue;
```

```
FacultyCode := getSmallField('FacultyCode');

send( '<HTML><HEAD>' );
sendTitle( 'Add a Faculty Research Page Form' );
send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

send('Please fill in the below fields.  When you are finished click the ');
send('"Submit" button ');

{Registration Form}
send('<center>');
send('<FORM method=post action=');
send('"http://131.120.39.65/cgi-win/faculty/addpage.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<TR><TD>Last Name:');
send('</TD><td><input type="text" name="LastName" ');
send('size=30 maxlength=30></td>');

send('<TR><TD>First Name:');
send('</TD><td><input type="text" name="FirstName" ');
send('size=20 maxlength=20></td>');

send('<TR><TD>Middle Initial:');
send('</TD><td><input type="text" name="MiddleInitial" ');
send('size=1 maxlength=1></td>');

 send('<TR><TD>Title:');
send('</TD><td><input type="text" name="Title" ');
send('size=35 maxlength=35></td>');

send('<TR><TD>Degree:');
send('</TD><td><input type="text" name="Degree" ');
send('size=3 maxlength=3></td>');

send('<TR><TD>Graduate School:');
send('</TD><td><input type="text" name="School" ');
send('size=50 maxlength=50></td>');

 send('<TR><TD>Year Graduated:');
send('</TD><td><input type="text" name="GradYear" ');
send('size=4 maxlength=4></td>');
```

```
send('<TR><TD>Office Area Code:');
send('</TD><td><input type="text" name="PhoneAreaCode" ');
send('size=3 maxlength=3></td>');

send('<TR><TD>Office Phone:');
send('</TD><td><input type="text" name="PhoneLocalNumber" ');
send('size=8 maxlength=8></td>');

send('<TR><TD>Email:');
send('</TD><td><input type="text" name="Email" ');
send('size=35 maxlength=35></td>');

send('<TR><TD>HomePage:');
send('</TD><td><input type="text" name="HomePage" ');
send('size=40 maxlength=40></td>');

send('<TR><TD>Research Areas:</TD>');
send('<TD><textarea rows=3 cols=50 name="ResearchAreas">');
send('Please list your research areas seperated ');
send('by commas.</textarea>');

send('<TR><TD>Research Description:</TD>');
send('<TD><textarea rows=10 cols=50 name="ResearchDescription">');
send('Please provide a description of your research area.</textarea>');

send('<TR><TD>Relevance to DOD/DON:</TD>');
send('<TD><textarea rows=5 cols=50 name="RelevancetoDOD/DON">');
send('Please state how your research area is relevant to DOD/DON.</textarea>');


send('</TABLE>');
send('<P>');
send('<input type="submit" value= "Submit Information">');
send('<input type="reset" value="Clear Form"></center>');
send('</form>');
send('<P>');

{If user cancels, send user to Catalog Menu}
send('<CENTER>');
send('<FORM method=post action="'+
'http://131.120.39.65/cgi-win/faculty/catalog.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<input type="submit" value="Cancel, Return to Catalog Menu">');
```

```
      send('</form>');
      send('</CENTER>');

      send('</BODY></HTML>' );
      closeStdout;
      closeApp( application );
   end;
 end;

 end.
```

{Add Research Page To Table}
```
unit Addpage1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, Cgi, DB, DBTables;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Table1: TTable;
    DataSource2: TDataSource;
    Table2: TTable;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
```

```
    FacultyCode : string;
    LastName : string;
    FirstName : string;
    MiddleInitial : string;
    Title : string;
    Degree : string;
    School : string;
    Gradyear : string;
    PhoneAreaCode : string;
    PhoneLocalNumber : string;
    Email : string;
    HomePage : string;

    theAreas : TStringList;
    theDescription : TStringList;
    theRelevance : TStringList;

begin

  with CGIEnvData1 do
  begin
    {required when this program runs under WebSite}
    webSiteINIFilename := paramstr(1);
    application.onException := cgiErrorHandler;
    application.processMessages;

    createStdout;
    sendPrologue;

    {receive input fields from HTML form}
    FacultyCode    := getSmallField( 'FacultyCode' );
    LastName    := getSmallField( 'LastName' );
    FirstName   := getSmallField( 'FirstName' );
    MiddleInitial := getSmallField( 'MiddleInitial' );
    Title    := getSmallField( 'Title' );
    Degree   := getSmallField( 'Degree' );
    School := getSmallField( 'School' );
    GradYear    := getSmallField( 'GradYear' );
    PhoneAreaCode   := getSmallField( 'PhoneAreaCode' );
    PhoneLocalNumber := getSmallField( 'PhoneLocalNumber' );
    Email := getSmallField( 'Email' );
    HomePage  := getSmallField( 'HomePage' );
```

```
theAreas := TStringList.create;
theAreas.clear;
getTextArea( 'ResearchAreas', theAreas );

theDescription := TStringList.create;
theDescription.clear;
getTextArea( 'ResearchDescription', theDescription );

theRelevance := TStringList.create;
theRelevance.clear;
getTextArea( 'RelevancetoDOD/DON', theRelevance );

send( '<HTML><HEAD>' );
sendTitle( 'Add Research Page Menu' );
send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

with Table1 do     {puts cursor on correct record in Research Page table}
    begin
        open;
        SetKey;
        FieldByName('FacultyCode').AsString := FacultyCode;
        GotoKey;
    end;

if (Table1.GoToKey = True) or (FacultyCode = CGINotFound) then

            {User already has a research page}
    begin
        send('<center><h1>You Already Hava a Research Page</h1>');
        sendHR;

        send('<p>');
        send('<FORM method=post action="'+
        'http://131.120.39.65/cgi-win/faculty/catalog.exe">');
        send('<INPUT TYPE="HIDDEN" NAME="FacultyCode"
VALUE="'+FacultyCode+'">');
        send('<input type="submit" value="Cancel, Return to Catalog Menu ">');
        send('</form>');
        send('</CENTER>');
    end

    else
        {add research page}
```

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```
      begin
          Table1.AppendRecord([FacultyCode,LastName,FirstName,
            MiddleInitial,Title,Degree,School,GradYear,
            PhoneAreaCode,PhoneLocalNumber,Email,HomePage]);
          Table1.close;

          Table2.open;
          Table2.AppendRecord([FacultyCode,theAreas,theDescription,
            theRelevance]);
          Table2.close;

        send('<center><h1>Your Research Page was successfully entered!</h1>');
        sendHR;

        send('<P>');
        send('<FORM method=post action="'+
          'http://131.120.39.65/cgi-win/faculty/catalog.exe">');
        send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
        send('<input type="submit" value="Catalog Menu ">');
        send('</form>');
        send('</CENTER>');
      end;

      send( '</BODY></HTML>' );

      closeStdout;
      closeApp(application);
    end;
  end;

end.
```

3. Modify ITM Faculty Research Page

{Displays Text in Research Page to be Modified}
unit Mpgshow;

interface

uses
 SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
 Forms, Dialogs, DB, DBTables, Cgidb, Cgi;

type
 TForm1 = class(TForm)
  CGIEnvData1: TCGIEnvData;
  CGIDB1: TCGIDB;
  DataSource1: TDataSource;
  Table1: TTable;
  procedure FormCreate(Sender: TObject);
 private
  { Private declarations }
 public
  { Public declarations }
 end;

var
 Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
 FacultyCode : string;

begin

 with CGIEnvData1 do
 begin
   {required when this program runs under WebSite}
   webSiteINIFilename := paramstr(1);
   application.onException := cgiErrorHandler;
   application.processMessages;

```
createStdout;
sendPrologue;

FacultyCode := getSmallField('FacultyCode');

send( '<HTML><HEAD>' );
sendTitle( 'Modify Research Page' );
send( '</HEAD><BODY BGCOLOR="ADEAEA">' );


{Modification form}
  with Table1 do   {Search Research Page Table for record to be modified}
    begin
      open;
      FindKey([FacultyCode]);
    end;

send('<center>');
send('<FORM METHOD=POST ACTION=');
send('"http://131.120.39.65/cgi-win/faculty/mod_pge.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<TR><TD>Research Areas:</TD>');
  send('<TD><textarea rows=3 cols=50 name="ResearchAreas">');
  CGIDB1.SendMemo(Table1.FieldByName('ResearchAreas'));
  send('</textarea>');

send('<TR><TD>Research Description:</TD>');
  send('<TD><textarea rows=10 cols=50 name="ResearchDescription">');
  CGIDB1.SendMemo(Table1.FieldByName('ResearchDescription'));
  send('</textarea>');

send('<TR><TD>DOD/DON Relevance:</TD>');
  send('<TD><textarea rows=5 cols=50 name="RelevancetoDOD/DON">');
  CGIDB1.SendMemo(Table1.FieldByName('RelevancetoDOD/DON'));
  send('</textarea>');

send('</TABLE> ');

send('<P>');

send('<input type="submit" value= "Submit Change"> ');
```

```
      send('<input type="reset" value="Reset Fields ">');
      send('</form> ');
      sendHR;

      send('<p>');
      send('<FORM METHOD=POST ACTION=');
      send('"http://131.120.39.65/cgi-win/faculty/catalog.exe">');
      send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
      send('<input type="submit" value="Cancel,Return to Catalog Menu">');
      send('</form>');
      send('</CENTER>');

    Table1.close;

      send( '</BODY></HTML>' );
      closeStdout;
      closeApp(application);
    end
  end;

end.


{Accepts Text Changes to Research Page}
unit Mod_pge1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Table1: TTable;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;
```

```pascal
var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
  FacultyCode      : string;
  AreaBrief        : TStringList;
  DescriptionBrief : TStringList;
  RelevanceBrief   : TStringList;
begin

  with CGIEnvData1 do
  begin
    {required when this program runs under WebSite}
    webSiteINIFilename := paramstr(1);
    application.onException := cgiErrorHandler;
    application.processMessages;

    createStdout;
    sendPrologue;

    FacultyCode := getSmallField( 'FacultyCode' );

    AreaBrief := TStringList.create;
    AreaBrief.clear;
    getTextArea( 'ResearchAreas', AreaBrief );

    DescriptionBrief := TStringList.create;
    DescriptionBrief.clear;
    getTextArea( 'ResearchDescription', DescriptionBrief );

    RelevanceBrief := TStringList.create;
    RelevanceBrief.clear;
    getTextArea( 'RelevancetoDOD/DON', RelevanceBrief );

    send( '<HTML><HEAD>' );
    sendTitle( 'Modify Research Page ' );
    send( '</HEAD><BODY BGCOLOR="ADEAEA">' );
    send('<center><h1>Modify Research Page</h1>');
```

```
{Modify Research Page}
with Table1 do
  begin
    open;
    FindKey([FacultyCode]);
    delete;
    AppendRecord([FacultyCode,AreaBrief,DescriptionBrief,RelevanceBrief]);
    close;
  end;

  send('<h2>The research page has been modified.</h2>');

  send('<p>');
  sendHR;
  send('<p>');

  send('<FORM METHOD=POST ACTION=');
  send('"http://131.120.39.65/cgi-win/faculty/catalog.exe">');
  send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
  send('<input type="submit" value="Catalog Menu">');
  send('</form></center>');

  send( '</BODY></HTML>' );
  closeStdout;
  closeApp(application);
 end;
 end;

end.
```

4. Add Publications

```
unit Pub_rrb1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Query1: TQuery;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
  FacultyCode : String;

begin

with CGIEnvData1 do
  begin
    {required when this program runs under WebSite}
    webSiteINIFilename := paramstr(1);
    application.onException := cgiErrorHandler;
    application.processMessages;

    createStdout;
```

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```
  sendPrologue;

FacultyCode    :=getSmallField('FacultyCode');

 {standard header information}
  send( '<HTML><HEAD>' );
  sendTitle( 'Choose To Add New or Existing PUB Menu' );
  send( '</HEAD><BODY BGCOLOR="ADEAEA">' );
  send ('<H4>Select a publication to add to your research page, faculty');
  send('research area, or both. If another ITM professor co-authored a');
  send('publication with you he may have already entered it, so you might');
  send('want to check the list of existing pubs first. If you are the only');
  send('author and know you did not enter the publication select "Add New Pub"</H4>');

send('<center>');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<FORM METHOD = POST ACTION= ');
send('"http://131.120.39.65/cgi-win/faculty/sel_rrb.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TR>');

send('<TD><SELECT NAME="PubTitle" TYPE="text" SIZE=1>');

with Query1 do
  begin
    close;
    SQL.Add('SELECT PubTitle');
    SQL.Add('FROM PUBS');
    open;

    first;  {puts cursor on first record in answer table}

    while not EOF do
     begin
        send('<OPTION VALUE= "'+FieldByName('PubTitle').AsString+'">');
        send(FieldByName('PubTitle').AsString);
        next;  {puts cursor on next record}
     end;
    close;
  end;

send('</SELECT></TD></TR>');
```

```
    send('<TR><td ALIGN="CENTER"><input type="radio" checked name="PubCombo" ');
    send('value="Pub2Pg">Add to Research Page');
    send('<input type="radio" name="PubCombo" value="Pub2Area">Add to Research Area');
    send('<input type="radio" name="PubCombo" value="Pub2Both">Add to Both </td>');

    send('<TR><td ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Add Existing
Pub"></td>');
    send('</FORM>');

    send('<FORM METHOD = POST  ACTION= ');
    send('"http://131.120.39.65/cgi-win/faculty/sel_pub.exe">');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
    send('<TR><td ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Add New
Pub"></td>');
    send('</FORM>');

    send('<FORM METHOD = POST  ACTION= ');
    send('"http://131.120.39.65/cgi-win/faculty/catalog.exe">');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
    send('<TR><td ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Cancel, Return to
Catalog Menu"></td>');
    send('</FORM>');

    send('</Table>');

    send('</BODY></HTML>');

    closeStdout;
    closeAPP(application);
  end;
end;

end.
```

{If Adding New Pub to Page and/or Areas}
unit Sel_pub1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, Cgi;

```pascal
type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
  FacultyCode    :string;

begin

  with CGIEnvData1 do
    begin
      {required when this program runs under WebSite}
      webSiteINIFilename := paramstr(1);
      application.onException := cgiErrorHandler;
      application.processMessages;

      createStdout;
      sendPrologue;

    FacultyCode := getSmallField('FacultyCode');

    send( '<HTML><HEAD>' );
    sendTitle( 'Determine Publication Type' );
    send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

    send ('<center><H1>Choose The Publication Type</H1></center>');
    send('<P>');
    send('<h2>Please click below the type of publication you want to ');
    send('enter');
```

```
    send('<P>');
    send('<Center>');
    send('<FORM method=post action="'+
     'http://131.120.39.65/cgi-win/faculty/pubtype.exe">');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');

    send('<TABLE BORDER=5 CELLPADDING=5>');

    send('<TR><td><input type="radio" checked name="PubType" ');
    send('value="Journal">Journal');
    send('<input type="radio" name="PubType" value="Book">Book');
    send('<input type="radio" name="PubType" value="Other">Other</td>');

    send('</TABLE> ');

    send('<input type="submit" value="Send Reply">');
    send('</form>');

    send('<P>');
    sendHR;
    send('<p>');

    send('<FORM method=post action="'+
       'http://131.120.39.65/cgi-win/faculty/catalog.exe">');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
    send('<input type="submit" value="Cancel, Return to Catalog Menu">');
    send('</form>');
    send('</CENTER>');

    send('</BODY></HTML>' );
    closeStdout;
    closeApp( application );
    end;
   end;

end.

{If Pub is a Journal}
unit Add_jrnl;

interface

uses
```

```
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Table1: TTable;
    DataSource2: TDataSource;
    Table2: TTable;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
FacultyCode       :string;
PubTitle          :string;
theAuthor         :TStringList;
JournalName       :string;
Volume            :string;
Number            :string;
PubMonth          :string;
PubYear           :string;
Pages             :string;
Note              :string;

begin

with CGIEnvData1 do
  begin
    {required when this program runs under WebSite}
    webSiteINIFilename := paramstr(1);
```

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```
application.onException := cgiErrorHandler;
application.processMessages;

createStdout;
sendPrologue;

{receive input fields from HTML form}
FacultyCode   := getSmallField('FacultyCode');
PubTitle      := getSmallField( 'PubTitle' );

theAuthor := TStringList.create;
 theAuthor.clear;
 getTextArea( 'Author', theAuthor );

JournalName        := getSmallField( 'JournalName' );
Volume             := getSmallField( 'Volume' );
Number             := getSmallField( 'Number' );
PubMonth            := getSmallField( 'PubMonth' );
PubYear             := getSmallField( 'PubYear' );
Pages             := getSmallField( 'Pages' );
Note              := getSmallField( 'Note' );


send( '<HTML><HEAD>' );
sendTitle( 'Add Research Page Menu' );
send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

with Table1 do    {puts cursor on correct record in Pub table}
    begin
     open;
     SetKey;
     FieldByName('PubTitle').AsString := PubTitle;
     GotoKey;
    end;

if (Table1.GoToKey = True) then
              {Pub already exist}
   begin
     send('<Center><h1>Publication Already Exist In Database</h1>');
     sendHR;
     send('<P>');

     send('<FORM method=post action= ');
```

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```
        send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
        send('<INPUT TYPE="HIDDEN" NAME="FacultyCode"
VALUE="'+FacultyCode+'">');
        send('<input type="submit" value= "Cancel, Return to Catalog Menu"> ');
        send('</form> ');
        send('</CENTER>');
      end
    else
      {add research page}
      begin

        Table1.open;
        Table1.AppendRecord([PubTitle,theAuthor,PubMonth,PubYear,Note]);
        Table1.close;

        Table2.open;
        Table2.AppendRecord([PubTitle,JournalName,Volume,Number,Pages]);
        Table2.close;

       send ('<H2>Choose whether you want to add your publication to a');
       send(' faculty research page, faculty research area, or both</H2>');

      send('<center>');
      send('<FORM METHOD = POST ACTION= ');
      send('"http://131.120.39.65/cgi-win/faculty/sel_rrb.exe">');
      send('<INPUT TYPE="HIDDEN" NAME="PubTitle" VALUE="'+PubTitle+'">');
      send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');

      send('<TABLE BORDER=5 CELLPADDING=5>');

      send('<TR><td ALIGN="CENTER"><input type="radio" checked name="PubCombo" ');
      send('value="Pub2Pg">Add to Research Page');
      send('<input type="radio" name="PubCombo" value="Pub2Area">Add to Research Area');
      send('<input type="radio" name="PubCombo" value="Pub2Both">Add to Both </td>');

      send('</TABLE>');
      send('<INPUT TYPE=SUBMIT VALUE="Submit Selection">');
      send('</FORM>');
      send('</center>');
     end;

   send( '</BODY></HTML>' );
   closeStdout;
```

```
      closeApp(application);
    end;
   end;

  end.

  {If Pub is a Book}
  unit Add_bk1;

  interface

  uses
   SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
   Forms, Dialogs, DB, DBTables, Cgi;

  type
   TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Table1: TTable;
    DataSource2: TDataSource;
    Table2: TTable;
    procedure FormCreate(Sender: TObject);
   private
    { Private declarations }
   public
    { Public declarations }
   end;

  var
   Form1: TForm1;

  implementation

  {$R *.DFM}

  procedure TForm1.FormCreate(Sender: TObject);
  var
  theAuthor          :TStringList;
  PubTitle           :string;
  Publisher          :string;
  PubMonth            :string;
  PubYear            :string;
```

```pascal
Volume          :string;
Series          :string;
Edition         :string;
Note            :string;
FacultyCode     :string;

begin

with CGIEnvData1 do
 begin
  {required when this program runs under WebSite}
   webSiteINIFilename := paramstr(1);
   application.onException := cgiErrorHandler;
   application.processMessages;

   createStdout;
   sendPrologue;

  {receive input fields from HTML form}
   theAuthor := TStringList.create;
   theAuthor.clear;
   getTextArea( 'Author', theAuthor );

   PubTitle        := getSmallField( 'PubTitle' );
   Publisher       := getSmallField( 'Publisher' );
   PubMonth         := getSmallField( 'PubMonth' );
   PubYear          := getSmallField( 'PubYear' );
   Volume           := getSmallField( 'Volume' );
   Series         := getSmallField( 'Series' );
   Edition        := getSmallField( 'Edition' );
   Note           := getSmallField( 'Note' );
   FacultyCode        := getSmallField('FacultyCode');


   send( '<HTML><HEAD>' );
   sendTitle( 'Add Research Page Menu' );
   send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

   with Table1 do    {puts cursor on correct record in Pub table}
      begin
        open;
        SetKey;
        FieldByName('PubTitle').AsString := PubTitle;
```

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```
      GotoKey;
    end;

if (Table1.GoToKey = True) then
                    {Pub already exist}
  begin
    send('<Center><h1>Publication Already Exist In Database</h1>');
    sendHR;
    send('<P>');

    send('<FORM method=post action= ');
    send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
    send('<input type="submit" value= "Cancel, Return to Catalog Menu"> ');
    send('</form> ');
    send('</CENTER>');
  end
else
        {add research page}
  begin

    Table1.open;
    Table1.AppendRecord([PubTitle,theAuthor,PubMonth,PubYear,Note]);
    Table1.close;

    Table2.open;
    Table2.AppendRecord([PubTitle,Publisher,Volume,Series,Edition]);
    Table2.close;

   send ('<H2>Choose whether you want to add your publication to a');
   send(' faculty research page, faculty research area, or both</H2>');

   send('<center>');
   send('<FORM METHOD = POST ACTION= ');
   send('"http://131.120.39.65/cgi-win/faculty/sel_rrb.exe">');
   send('<INPUT TYPE="HIDDEN" NAME="PubTitle" VALUE="'+PubTitle+'">');
   send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');

   send('<TABLE BORDER=5 CELLPADDING=5>');

   send('<TR><td ALIGN="CENTER"><input type="radio" checked name="PubCombo" ');
   send('value="Pub2Pg">Add to Research Page');
   send('<input type="radio" name="PubCombo" value="Pub2Area">Add to Research Area');
```

```
      send('<input type="radio" name="PubCombo" value="Pub2Both">Add to Both </td>');

      send('</TABLE>');
      send('<INPUT TYPE=SUBMIT VALUE="Submit Selection">');
      send('</FORM>');
      send('</center>');
    end;

   send( '</BODY></HTML>' );
   closeStdout;
   closeApp(application);
  end;
 end;

end.


{If Pub is  Other Than Journal or Book}
unit Add_oth1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
   CGIEnvData1: TCGIEnvData;
   DataSource1: TDataSource;
   Table1: TTable;
   DataSource2: TDataSource;
   Table2: TTable;
   procedure FormCreate(Sender: TObject);
  private
   { Private declarations }
  public
   { Public declarations }
  end;

var
 Form1: TForm1;

implementation
```

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```
{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
theAuthor          :TStringList;
PubTitle           :string;
PubMonth            :string;
PubYear            :string;
theCitation        :TStringList;
FacultyCode         :string;

begin

with CGIEnvData1 do
 begin
  {required when this program runs under WebSite}
  webSiteINIFilename := paramstr(1);
  application.onException := cgiErrorHandler;
  application.processMessages;

  createStdout;
  sendPrologue;

  {receive input fields from HTML form}
  theAuthor := TStringList.create;
  theAuthor.clear;
  getTextArea( 'Author', theAuthor );

  PubTitle           := getSmallField( 'PubTitle' );
  PubMonth            := getSmallField( 'PubMonth' );
  PubYear            := getSmallField( 'PubYear' );
  FacultyCode         := getSmallField('FacultyCode');

  theCitation := TStringList.create;
  theCitation.clear;
  getTextArea( 'Citation', theCitation );

  send( '<HTML><HEAD>' );
  sendTitle( 'Add Research Page Menu' );
  send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

  with Table1 do    {puts cursor on correct record in Pub table}
      begin
```

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```
          open;
          SetKey;
          FieldByName('PubTitle').AsString := PubTitle;
          GotoKey;
        end;

  if (Table1.GoToKey = True) then
                {Pub already exist}
      begin
        send('<Center><h1>Publication Already Exist In Database</h1>');
        sendHR;
        send('<P>');

        send('<FORM method=post action= ');
        send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
        send('<INPUT TYPE="HIDDEN" NAME="FacultyCode"
VALUE="'+FacultyCode+'">');
        send('<input type="submit" value= "Cancel, Return to Catalog Menu"> ');
        send('</form> ');
        send('</CENTER>');
      end
    else
      {add research page}
      begin

        Table1.open;
        Table1.AppendRecord([PubTitle,theAuthor,PubMonth,PubYear]);
        Table1.close;

        Table2.open;
        Table2.AppendRecord([PubTitle,theCitation]);
        Table2.close;

      send ('<H2>Choose whether you want to add your publication to a');
      send(' faculty research page, faculty research area, or both</H2>');

      send('<center>');
      send('<FORM METHOD = POST ACTION= ');
      send('"http://131.120.39.65/cgi-win/faculty/sel_rrb.exe">');
      send('<INPUT TYPE="HIDDEN" NAME="PubTitle" VALUE="'+PubTitle+'">');
      send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
      send('<TABLE BORDER=5 CELLPADDING=5>');
```

```
        send('<TR><td ALIGN="CENTER"><input type="radio" checked name="PubCombo" ');
        send('value="Pub2Pg">Add to Research Page');
        send('<input type="radio" name="PubCombo" value="Pub2Area">Add to Research Area');
        send('<input type="radio" name="PubCombo" value="Pub2Both">Add to Both </td>');

        send('</TABLE>');
        send('<INPUT TYPE=SUBMIT VALUE="Submit Selection">');
        send('</FORM>');
        send('</center>');
      end;

    send( '</BODY></HTML>' );
    closeStdout;
    closeApp(application);
  end;
end;


end.


{IF Pub Exist and Adding to Page and/or Area}
unit Sel_rrb1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Query1: TQuery;
    DataSource2: TDataSource;
    Table1: TTable;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
```

```pascal
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
PubTitle            :string;
PubCombo            :string;
FacultyCode         :string;

begin

 with CGIEnvData1 do
   begin
   {required when this program runs under WebSite}
   webSiteINIFilename := paramstr(1);
   application.onException := cgiErrorHandler;
   application.processMessages;

   createStdout;
   sendPrologue;

   {receive input fields from HTML form}
   FacultyCode      := getSmallField( 'FacultyCode' );
   PubTitle         := getSmallField( 'PubTitle' );
   PubCombo         := getSmallField('PubCombo');

   send( '<HTML><HEAD>' );
   sendTitle( 'Add Pub Menu' );
   send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

if PubCombo ='Pub2Pg' then
begin
   with Table1 do     {puts cursor on correct record in Pub table}
      begin
          open;
          SetKey;
          FieldByName('PubTitle').AsString := PubTitle;
          FieldByName('FacultyCode').AsString := FacultyCode;
          GotoKey;
      end;
```

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```
        if Table1.GoToKey = True then
                        {Pub already exist}
    begin
            send('<Center><h2>Publication Already On This Research Page</h2>');
            sendHR;
            send('<P>');

            send('<FORM method=post action= ');
            send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
            send('<INPUT TYPE="HIDDEN" NAME="FacultyCode"
 VALUE="'+FacultyCode+'">');
            send('<input type="submit" value= "Cancel, Return to Catalog Menu"> ');
            send('</form> ');
            send('</CENTER>');
    end
    else
            {add research page}
    begin
            {input record into tables}
            Table1.open;
            Table1.AppendRecord([PubTitle,FacultyCode]);
            Table1.close;

            send('<h2>Your Publication was successfully entered on research page!</h2>');
            sendHR;

            send('<P>');
            send('<Center>');
            send('<FORM method=post action= ');
            send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
            send('<INPUT TYPE="HIDDEN" NAME="FacultyCode"
 VALUE="'+FacultyCode+'">');
            send('<input type="submit" value= "Catalog Menu"> ');
            send('</form> ');
            send('</CENTER>');
        end;
    end;

if PubCombo ='Pub2Area' then
begin
    send('<center><H2>Add Publication to Research Area</h2>');
```

```
send('<FORM METHOD = POST ACTION= ');
send('"http://131.120.39.65/cgi-win/faculty/pub2area.exe">');
send('<INPUT TYPE="HIDDEN" NAME="PubTitle" VALUE="'+PubTitle+'">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<TR>');
send('<TD ALIGN="CENTER"><SELECT NAME="ResearchAreaTitle" TYPE="text"
SIZE=1>');

with Query1 do

    begin
    close;
    SQL.Add('SELECT ResearchAreaTitle ');
    SQL.Add('FROM RES_AREA ');
    open;

    first;  {puts cursor on first record in answer table}

    while not EOF do
     begin
        send('<OPTION VALUE= "'+FieldByName('ResearchAreaTitle').AsString+'">');
        send(FieldByName('ResearchAreaTitle').AsString);
        next;  {puts cursor on next record}
     end;
    close;
   end;

send('</SELECT></TD></TR>');

send('</TABLE>');
send('<INPUT TYPE=SUBMIT VALUE="Submit Information">');
send('</FORM>');
sendHR;

send('<FORM method=post action="'+
   'http://131.120.39.65/cgi-win/faculty/catalog.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<input type="submit" value="Cancel, Return to Catalog Menu">');
send('</form>');
send('</CENTER>');
```

```
    end;

if PubCombo ='Pub2Both' then
begin
  send('<center><H2>Add Publication to Research Page and Research Area</h2>');

  send('<FORM METHOD = POST ACTION= ');
  send('"http://131.120.39.65/cgi-win/faculty/pub2both.exe">');
  send('<INPUT TYPE="HIDDEN" NAME="PubTitle" VALUE="'+PubTitle+'">');
  send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');

  send('<TABLE BORDER=5 CELLPADDING=5>');

  send('<TR>');
  send('<TD ALIGN="CENTER"><SELECT NAME="ResearchAreaTitle" TYPE="text"
SIZE=1>');

  with Query1 do

    begin
      close;
      SQL.Add('SELECT ResearchAreaTitle ');
      SQL.Add('FROM RES_AREA ');
      open;

      first;  {puts cursor on first record in answer table}

      while not EOF do
       begin
         send('<OPTION VALUE= "'+FieldByName('ResearchAreaTitle').AsString+'">');
         send(FieldByName('ResearchAreaTitle').AsString);
         next;  {puts cursor on next record}
       end;
      close;
     end;

  send('</SELECT></TD></TR>');

  send('</TABLE>');
  send('<INPUT TYPE=SUBMIT VALUE="Submit Information">');
  send('</FORM>');

  sendHR;
```

```
      {If user cancels,  Catalog Menu}
      send('<FORM method=post action=');
      send('"http://131.120.39.65/cgi-win/faculty/catalog.exe">');
      send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
      send('<input type="submit" value="Cancel, Return to Catalog Menu ">');
      send('</form>');
      send('</CENTER>');

  end;
    send( '</BODY></HTML>' );

    closeStdout;
    closeApp(application);
  end;
 end;


end.
```

{Adding Pub to a Research Area(s) Only}
```
unit Pub_area;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Table1: TTable;
    DataSource2: TDataSource;
    Table2: TTable;
    DataSource3: TDataSource;
    Query1: TQuery;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;
```

```pascal
var
 Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
ResearchAreaTitle   :string;
PubTitle            :string;
SubAreasExist       :string;
FacultyCode         :string;

begin

 with CGIEnvData1 do
  begin
   {required when this program runs under WebSite}
   webSiteINIFilename := paramstr(1);
   application.onException := cgiErrorHandler;
   application.processMessages;

   createStdout;
   sendPrologue;

   {receive input fields from HTML form}
   ResearchAreaTitle   := getSmallField( 'ResearchAreaTitle' );
   PubTitle            := getSmallField( 'PubTitle' );
   FacultyCode         := getSmallField('FacultyCode');

   send( '<HTML><HEAD>' );
   sendTitle( 'Add Pub to Research Area Menu' );
   send( '</HEAD><BODY BGCOLOR="ADEAEA">' );


    with Table1 do   {Search Research Area Table for record to be modified}
       begin
        open;
        FindKey([ResearchAreaTitle]);
       end;

   SubAreasExist := Table1.FieldByName('SubAreas').AsString;
```

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```
If SubAreasExist = 'Yes' then
begin
  send('<h3>The research area you selected to add the publication to has research');
  send('subareas.  Select one of subareas to add the publication.</h3>');
  send('<P>');
  send('<CENTER> ');
    send('<TABLE BORDER=5 CELLPADDING=5>');

  send('<FORM METHOD = POST ACTION= ');
  send('"http://131.120.39.65/cgi-win/faculty/pub2sub.exe">');
  send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
  send('<INPUT TYPE="HIDDEN" NAME="PubTitle" VALUE="'+PubTitle+'">');
  send('<TR>');

  send('<TD><SELECT NAME="ResearchSubAreaTitle" TYPE="text" SIZE=1>');

  with Query1 do
    begin
      close;
      SQL.Add('SELECT RES_SUBA.ResearchSubAreaTitle');
      SQL.Add('FROM RES_SUBA');
      SQL.Add('WHERE RES_SUBA.ResearchAreaTitle =  "' + ResearchAreaTitle + '"');
      open;
      first;  {puts cursor on first record in answer table}

      while not EOF do
       begin
          send('<OPTION VALUE= "'+FieldByName('ResearchSubAreaTitle').AsString+'">');
          send(FieldByName('ResearchSubAreaTitle').AsString);
          next;  {puts cursor on next record}
        end;
      close;
    end;

  send('</SELECT></TD></TR>');
  send('</TABLE>');
  send('<INPUT TYPE=SUBMIT VALUE="Submit Information">');
  send('</FORM>');

  send('<P>');
  sendHR;
  send('<center>');
  send('<FORM METHOD = POST  ACTION= ');
```

```
        send('"http://131.120.39.65/cgi-win/faculty/catalog.exe">');
        send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
        send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Cancel, Return to
Catalog Menu"></TD></FORM>');
        send('</TR></TABLE></CENTER>');
end  {end subareas = yes}
else {else no subarea}
begin
    with Table2 do     {puts cursor on correct record in PUB_AREA table}
        begin
            open;
            SetKey;
            FieldByName('PubTitle').AsString := PubTitle;
            FieldByName('ResearchAreaTitle').AsString := ResearchAreaTitle;
            GotoKey;
        end;

    if Table2.GoToKey = True then
                    {User already has pub in this research area}
    begin
        send('<h3>You already have that publication in this Research Area.</h3>');
        sendHR;
        send('<P>');

        send('<center> ');
        send('<FORM method=post action= ');
        send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
        send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
        send('<input type="submit" value= "Catalog Menu"> ');
        send('</form> ');
        send('</CENTER>');
    end
    else
    begin {add pub to research area}

      {input record into Research Area table}
      Table2.AppendRecord([PubTitle,ResearchAreaTitle]);
      Table2.close;

      send('<center><h2>Your Publication was successfully');
      send('added to the research area!</h2>');
      sendHR;
      send('<P>');
```

```
      send('<center> ');
      send('<FORM method=post action= ');
      send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
      send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
      send('<input type="submit" value= "Catalog Menu"> ');
      send('</form> ');
      send('</CENTER>');
    end;

 end; {end else of no subareas exist}

  send( '</BODY></HTML>' );

  closeStdout;
  closeApp(application);
 end;
end;

end.
```

{If a Pub is Going to a Subarea of an Area}
```
unit Pub2sub1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
   CGIEnvData1: TCGIEnvData;
   DataSource1: TDataSource;
   Table1: TTable;
   procedure FormCreate(Sender: TObject);
  private
   { Private declarations }
  public
   { Public declarations }
  end;

var
  Form1: TForm1;
```

```
implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
ResearchSubAreaTitle : string;
PubTitle            : string;
FacultyCode         : string;

begin

with CGIEnvData1 do
 begin
  {required when this program runs under WebSite}
  webSiteINIFilename := paramstr(1);
  application.onException := cgiErrorHandler;
  application.processMessages;

  createStdout;
  sendPrologue;

  {receive input fields from HTML form}
  ResearchSubAreaTitle  := getSmallField( 'ResearchSubAreaTitle' );
  PubTitle              := getSmallField( 'PubTitle' );
  FacultyCode           := getSmallField('Facultycode');

  send( '<HTML><HEAD>' );
  sendTitle( 'Add Pub to Research Area Menu' );
  send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

  with Table1 do    {puts cursor on correct record in Research Page table}
     begin
       open;
       SetKey;
       FieldByName('ResearchSubAreaTitle').AsString := ResearchSubAreaTitle;
       FieldByName('PubTitle').AsString := PubTitle;
       GotoKey;
     end;

   if (Table1.GoToKey = True) then
                {User already has pub linked to research page}
   begin
```

```
            send('<center><h2>You already have that publication');
            send('in this research subarea</h2>');
            sendHR;

      send('<P>');

      send('<center> ');
      send('<FORM method=post action= ');
      send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
      send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
      send('<input type="submit" value= "Cancel, Return to Catalog Menu"> ');
      send('</form> ');
      send('</CENTER>');
    end
    else
        {add research page}
    begin
        {input record into Research Area table}
      Table1.AppendRecord([PubTitle,ResearchSubAreaTitle]);
      Table1.close;

      send('<center><h2>Your Publication was successfully');
      send('added to the selected research subarea!</h2>');
      sendHR;

      send('<P>');
      send('<center> ');
      send('<FORM method=post action= ');
      send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
      send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
      send('<input type="submit" value= "Catalog Menu"> ');
      send('</form> ');
      send('</CENTER>');
    end;
      send( '</BODY></HTML>' );

    closeStdout;
    closeApp(application);
  end;
end;

end.
```

```pascal
{Adding Pub to Both Research Page and Area(s)}
unit Pub2bot;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Table1: TTable;
    DataSource2: TDataSource;
    Table2: TTable;
    DataSource3: TDataSource;
    Table3: TTable;
    DataSource4: TDataSource;
    Query1: TQuery;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
PubTitle            :string;
FacultyCode         :string;
ResearchAreaTitle   :string;
SubAreasExist       :string;

begin
```

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```
with CGIEnvData1 do
  begin
  {required when this program runs under WebSite}
  webSiteINIFilename := paramstr(1);
  application.onException := cgiErrorHandler;
  application.processMessages;

  createStdout;
  sendPrologue;

  {receive input fields from HTML form}
  PubTitle          := getSmallField( 'PubTitle' );
  FacultyCode       := getSmallField( 'FacultyCode' );
  ResearchAreaTitle := getSmallField( 'ResearchAreaTitle' );

  send( '<HTML><HEAD>' );
  sendTitle( 'Add Pub to Research Area Menu' );
  send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

  with Table1 do   {Search Research Area Table for record to be modified}
      begin
        open;
        FindKey([ResearchAreaTitle]);
        end;

  SubAreasExist := Table1.FieldByName('SubAreas').AsString;

If SubAreasExist = 'Yes' then
  begin
     send('<h3>The research area you selected to add the publication to has research');
     send('subareas. Choose one  to add the publication.</H3>');
     send('<P>');
     send('<CENTER> ');
     send('<center>');
     send('<TABLE BORDER=5 CELLPADDING=5>');

     send('<FORM METHOD = POST ACTION= ');
     send('"http://131.120.39.65/cgi-win/faculty/pub2_all.exe">');
     send('<INPUT TYPE="HIDDEN" NAME="PubTitle"' +
         'VALUE="'+PubTitle+'">');
     send('<INPUT TYPE="HIDDEN" NAME="FacultyCode"' +
         'VALUE="'+FacultyCode+'">');
     send('<TR>');
```

```
        send('<TD><SELECT NAME="ResearchSubAreaTitle" TYPE="text" SIZE=1>');

    with Query1 do
      begin
        close;
        SQL.Add('SELECT RES_SUBA.ResearchSubAreaTitle');
        SQL.Add('FROM RES_SUBA');
        SQL.Add('WHERE RES_SUBA.ResearchAreaTitle =  "' + ResearchAreaTitle + '"');
        open;
        first;  {puts cursor on first record in answer table}

        while not EOF do
         begin
            send('<OPTION VALUE= "'+FieldByName('ResearchSubAreaTitle').AsString+'">');
            send(FieldByName('ResearchSubAreaTitle').AsString);
            next;  {puts cursor on next record}
         end;
        close;
      end;

    send('</SELECT></TD></TR>');
    send('</TABLE>');
    send('<INPUT TYPE=SUBMIT VALUE="Submit Information">');
    send('</FORM>');

    send('<P>');


    send('<FORM METHOD = POST  ACTION= ');
    send('"http://131.120.39.65/cgi-win/faculty/catalog.exe">');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
    send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Cancel, Return to
Catalog Menu"></TD></FORM>');
    send('</TR></TABLE></CENTER>');
end  {end subareas = yes}
else {else no subarea}
begin
    with Table2 do    {puts cursor on correct record in PagePUB table}
      begin
          open;
          SetKey;
          FieldByName('PubTitle').AsString := PubTitle;
          FieldByName('FacultyCode').AsString := FacultyCode;
```

```
            GotoKey;
        end;

    with Table3 do      {puts cursor on correct record in PUBAREA table}
        begin
            open;
            SetKey;
            FieldByName('PubTitle').AsString := PubTitle;
            FieldByName('ResearchAreaTitle').AsString := ResearchAreaTitle;
            GotoKey;
        end;


if (Table2.GoToKey = True) and (Table3.GoToKey = False) then

            {User already has pub linked to research page}
begin
    send('<center><h2>You already have that publication');
    send('on selected research page.  Publication just added to');
    send('selected research area.</h2>');
        Table3.AppendRecord([PubTitle,ResearchAreaTitle]);
        Table3.close;

    sendHR;
    send('<P>');

    send('<center> ');
    send('<FORM method=post action= ');
    send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
    send('<input type="submit" value= "Catalog Menu"> ');
    send('</form> ');
    send('</CENTER>');
end
else
    if (Table2.GoToKey = False) and (Table3.GoToKey = True) then

            {User already has pub linked to research area}
    begin
        send('<center><h2>You already have that publication');
        send('in selected research area.  Publication just added to');
        send('selected research page.</h2>');
            Table2.AppendRecord([PubTitle,FacultyCode]);
```

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```
        Table2.close;

    sendHR;
    send('<P>');

    send('<center> ');
    send('<FORM method=post action= ');
    send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
    send('<input type="submit" value= "Catalog Menu"> ');
    send('</form> ');
    send('</CENTER>');
  end
  else
   if (Table2.GoToKey = True) and (Table3.GoToKey = True) then

          {User already has pub linked to both tables}
    begin
     send('<center><h2>You already have that publication');
     send('on selected research page and research area.</h2>');

     sendHR;
     send('<P>');

     send('<center> ');
     send('<FORM method=post action= ');
     send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
     send('<INPUT TYPE="HIDDEN" NAME="FacultyCode"
VALUE="'+FacultyCode+'">');
     send('<input type="submit" value= "Catalog Menu"> ');
     send('</form> ');
     send('</CENTER>');
   end
   else
    begin
         {add research page and research area}

    Table2.AppendRecord([PubTitle,FacultyCode]);
    Table2.close;
    Table3.AppendRecord([PubTitle,ResearchAreaTitle]);
    Table3.close;

    send('<center><h2>Your Publication was successfully');
```

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```
      send('added to the selected research area and page!</h2>');

      sendHR;
      send('<P>');
      send('<center> ');

      send('<FORM method=post action= ');
      send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
      send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
      send('<input type="submit" value= "Catalog Menu"> ');
      send('</form> ');
      send('</CENTER>');
    end;
  end;
  send( '</BODY></HTML>' );

    closeStdout;
    closeApp(application);
  end;
 end;
end.
```

{If Pub is also going to a Subarea of a Research Area}
```
unit Pub2all;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Table1: TTable;
    DataSource2: TDataSource;
    Table2: TTable;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
```

```pascal
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
ResearchSubAreaTitle :string;
PubTitle          :string;
FacultyCode        :string;
begin

with CGIEnvData1 do
 begin
  {required when this program runs under WebSite}
  webSiteINIFilename := paramstr(1);
  application.onException := cgiErrorHandler;
  application.processMessages;

  createStdout;
  sendPrologue;

  {receive input fields from HTML form}
  ResearchSubAreaTitle   := getSmallField( 'ResearchSubAreaTitle' );
  PubTitle            := getSmallField( 'PubTitle' );
  FacultyCode          := getSmallField( 'Facultycode' );

  send( '<HTML><HEAD>' );
  sendTitle( 'Add Pub to Research Area Menu' );
  send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

    with Table1 do    {puts cursor on correct record in PUBSAREA table}
       begin
          open;
          SetKey;
          FieldByName('ResearchSubAreaTitle').AsString := ResearchSubAreaTitle;
          FieldByName('PubTitle').AsString := PubTitle;
          GotoKey;
       end;
```

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```
with Table2 do    {puts cursor on correct record in PAGEPUB table}
   begin
      open;
      SetKey;
      FieldByName('FacultyCode').AsString := FacultyCode;
      FieldByName('PubTitle').AsString := PubTitle;
      GotoKey;
   end;

if (Table1.GoToKey = True) and (Table2.GoToKey = False) then

            {User already has pub linked to research page}
begin
    send('<center><h2>You already have that publication');
    send('on selected research subarea.  Publication just added to');
    send('selected research page.</h2>');
       Table2.AppendRecord([PubTitle,FacultyCode]);
       Table2.close;
       sendHR;
    send('<P>');

    send('<center> ');
    send('<FORM method=post action= ');
    send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
    send('<input type="submit" value= "Catalog Menu"> ');
    send('</form> ');
    send('</CENTER>');
end
else
   if (Table1.GoToKey = False) and (Table2.GoToKey = True) then

            {User already has pub linked to research area}
   begin
    send('<center><h2>You already have that publication');
    send('in selected research page.  Publication just added to');
    send('selected research subarea.</h2>');
       Table1.AppendRecord([PubTitle,ResearchSubAreaTitle]);
       Table1.close;
       sendHR;
    send('<P>');

    send('<center> ');
```

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```
        send('<FORM method=post action= ');
        send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
        send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
        send('<input type="submit" value= "Catalog Menu"> ');
        send('</form> ');
        send('</CENTER>');
    end
    else
     if (Table1.GoToKey = True) and (Table2.GoToKey = True) then

              {User already has pub linked to both tables}
       begin
        send('<center><h2>You already have that publication');
        send('on selected research page and research subarea.</h2>');

        sendHR;
        send('<P>');

        send('<center> ');
        send('<FORM method=post action= ');
        send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
        send('<INPUT TYPE="HIDDEN" NAME="FacultyCode"
VALUE="'+FacultyCode+'">');
        send('<input type="submit" value= "Catalog Menu"> ');
        send('</form> ');
        send('</CENTER>');
      end
      else
       begin
           {add to research page and research subarea}

       Table1.AppendRecord([PubTitle,ResearchSubAreaTitle]);
       Table1.close;
       Table2.AppendRecord([PubTitle,FacultyCode]);
       Table2.close;

       send('<center><h2>Your Publication was successfully');
       send('added to the selected research subarea and page!</h2>');
       sendHR;
       send('<P>');
       send('<center> ');
       send('<FORM method=post action= ');
       send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
```

```
        send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
        send('<input type="submit" value= "Catalog Menu"> ');
        send('</form> ');
        send('</CENTER>');
      end;

    send( '</BODY></HTML>' );

    closeStdout;
    closeApp(application);
  end;
end;

end.
```

5. Delete Publications

```
unit Dpubrrb;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Query1: TQuery;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
  Facultycode    : string;

begin

with CGIEnvData1 do
  begin
    {required when this program runs under WebSite}
    webSiteINIFilename := paramstr(1);
    application.onException := cgiErrorHandler;
    application.processMessages;

    createStdout;
```

```
sendPrologue;

FacultyCode   := getSmallField('Facultycode');

{standard header information}
send( '<HTML><HEAD>' );
sendTitle( 'List PubTitles and Combination Menu' );
send( '</HEAD><BODY BGCOLOR="ADEAEA">' );
send ('<H3>Choose the publication you want to delete from your');
send(' research page, faculty research area, or both.</H3>');

send('<center>');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<FORM METHOD = POST ACTION= ');
send('"http://131.120.39.65/cgi-win/faculty/del_rrb.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TR>');

send('<TD><SELECT NAME="PubTitle" TYPE="text" SIZE=1>');

with Query1 do
 begin
   close;
   SQL.Add('SELECT PubTitle');
   SQL.Add('FROM PUBS');
   open;

   first;  {puts cursor on first record in answer table}

   while not EOF do
    begin
      send('<OPTION VALUE= "'+FieldByName('PubTitle').AsString+'">');
      send(FieldByName('PubTitle').AsString);
      next;  {puts cursor on next record}
    end;
   close;
  end;

send('</SELECT></TD></TR>');

send('<TR><td ALIGN="CENTER"><input type="radio" checked name="PubCombo" ');
  send('value="Pub2Pg">Delete From Page');
```

```
      send('<input type="radio" name="PubCombo" value="Pub2Area">Delete From Area');
      send('<input type="radio" name="PubCombo" value="Pub2Both">Delete From Both
</td>');

    send('<TR><td ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Submit
Information"></td>');
    send('</FORM>');

    send('<FORM method=post action="'+
    'http://131.120.39.65/cgi-win/faculty/catalog.exe">');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
    send('<TR><td ALIGN="CENTER"><input type="submit" value="Cancel, Return to Catalog
Menu"></td>');
    send('</form>');
    send('</table>');

    send('</BODY></HTML>');

    closeStdout;
    closeAPP(application);
  end;
end;

end.


{Determines From Where Pub Is Being Deleted}
unit Del_rrb1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    DataSource3: TDataSource;
    Query1: TQuery;
    Query2: TQuery;
    DataSource2: TDataSource;
    Table1: TTable;
```

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```
  procedure FormCreate(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
PubTitle          : string;
PubCombo             : string;
FacultyCode          : string;

begin
with CGIEnvData1 do
 begin
  {required when this program runs under WebSite}
  webSiteINIFilename := paramstr(1);
  application.onException := cgiErrorHandler;
  application.processMessages;

  createStdout;
  sendPrologue;

  {receive input fields from HTML form}
  PubTitle          := getSmallField( 'PubTitle' );
  PubCombo           := getSmallField('PubCombo');
  Facultycode        := getSmallField('FacultyCode');

  send( '<HTML><HEAD>' );
  sendTitle( 'Add Pub Menu' );
  send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

  if PubCombo ='Pub2Pg' then
   begin
     with Table1 do    {puts cursor on correct record in PAGEPub table}
```

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```
        begin
          open;
          SetKey;
          FieldByName('PubTitle').AsString := PubTitle;
          FieldByName('FacultyCode').AsString := FacultyCode;
          GotoKey;
        end;

    if (Table1.GoToKey = True) then
    begin      {Delete pub from PagePub table}
     with Query1 do
        begin
         close;
         SQL.clear;
         sql.add('DELETE FROM PAGEPUB ');
         sql.add('WHERE (PubTitle = "' + PubTitle + '") ');
         sql.add('AND (FacultyCode = "' + FacultyCode + '") ');
         ExecSQL;
        end;
      send('<H3>The publication has been deleted from research page.</H3>');
    end
    else
    begin
      send('<h3>The publication does not exist on your research page.');
      send('<BR>');
      send('Verify your selection and try again.</h3>');
     end;
    send('<P>');
    sendHR;
    send('<P>');

    send('<center>');
    send('<FORM method=post action="'+
    'http://131.120.39.65/cgi-win/faculty/catalog.exe">');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
    send('<input type="submit" value="Catalog Menu ">');
    send('</form>');
    send('</CENTER>');
  end;

if PubCombo ='Pub2Area' then
 begin
```

```
send('<H3>Delete Publication From A Research Area</h3>');

send('<FORM METHOD = POST ACTION= ');
send('"http://131.120.39.65/cgi-win/faculty/dpubarea.exe">');
send('<INPUT TYPE="HIDDEN" NAME="PubTitle" VALUE="'+PubTitle+'">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');

send('<TABLE BORDER=5 CELLPADDING=5>');

send('<TR>');
send('<TD ALIGN="CENTER"><SELECT NAME="ResearchAreaTitle" TYPE="text"
SIZE=1>');

with Query2 do
   begin
   close;
   SQL.Add('SELECT ResearchAreaTitle ');
   SQL.Add('FROM RES_AREA ');
   open;
   first;  {puts cursor on first record in answer table}

   while not EOF do
    begin
      send('<OPTION VALUE= "'+FieldByName('ResearchAreaTitle').AsString+'">');
      send(FieldByName('ResearchAreaTitle').AsString);
      next;  {puts cursor on next record}
    end;
    close;
   end;

send('</SELECT></TD></TR>');

send('<TR><TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Submit
Information"></TR>');
send('</FORM>');

send('<FORM method=post action="'+
   'http://131.120.39.65/cgi-win/faculty/catalog.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TR><TD ALIGN="CENTER"><input type="submit" value="Cancel, Return to
Catalog Menu "></TR>');
send('</form>');
send('</table>');
```

```
end;

if PubCombo ='Pub2Both' then
  begin
   send('<H3>Delete Publication From A Research Area And Page</h3>');

   send('<FORM METHOD = POST ACTION= ');
   send('"http://131.120.39.65/cgi-win/faculty/dpubboth.exe">');
   send('<INPUT TYPE="HIDDEN" NAME="PubTitle" VALUE="'+PubTitle+'">');
   send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');

   send('<TABLE BORDER=5 CELLPADDING=5>');

   send('<TR>');
   send('<TD ALIGN="CENTER"><SELECT NAME="ResearchAreaTitle" TYPE="text"
SIZE=1>');

   with Query2 do
      begin
       close;
       SQL.Add('SELECT ResearchAreaTitle ');
       SQL.Add('FROM RES_AREA ');
       open;
       first;  {puts cursor on first record in answer table}

       while not EOF do
        begin
          send('<OPTION VALUE= "'+FieldByName('ResearchAreaTitle').AsString+'">');
          send(FieldByName('ResearchAreaTitle').AsString);
          next;  {puts cursor on next record}
        end;
       close;
      end;

   send('</SELECT></TD></TR>');

   send('<TR><TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Submit
Information"></TR>');
   send('</FORM>');

   send('<FORM method=post action="'+
   'http://131.120.39.65/cgi-win/faculty/catalog.exe">');
   send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
```

```
    send('<TR><TD ALIGN="CENTER"><input type="submit" value="Cancel, Return to
Catalog Menu "></TR>');
    send('</form>');
    send('</table>');
  end;

  send( '</BODY></HTML>' );
  closeStdout;
  closeApp(application);
  end;
end;

end.
```

{If Pub Is Being Deleted From A Research Area}
unit Dpubare;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DBTables, DB, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Table1: TTable;
    DataSource2: TDataSource;
    Query1: TQuery;
    DataSource3: TDataSource;
    Table2: TTable;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

```
{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
ResearchAreaTitle    :string;
PubTitle             :string;
SubAreasExist        :string;
FacultyCode          :string;

begin

 with CGIEnvData1 do
  begin
   {required when this program runs under WebSite}
   webSiteINIFilename := paramstr(1);
   application.onException := cgiErrorHandler;
   application.processMessages;

   createStdout;
   sendPrologue;

   {receive input fields from HTML form}
   ResearchAreaTitle   := getSmallField( 'ResearchAreaTitle' );
   PubTitle            := getSmallField( 'PubTitle' );
   FacultyCode         := getSmallField('Facultycode');

   send( '<HTML><HEAD>' );
   sendTitle( 'Delete Pub From Research Area' );
   send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

   with Table1 do   {Search Research Area Table for record to be modified}
        begin
          open;
          FindKey([ResearchAreaTitle]);
        end;

   SubAreasExist := Table1.FieldByName('SubAreas').AsString;

If SubAreasExist = 'Yes' then
 begin
   send('The research area you selected to delete the publication from has research.');
   send('subareas. Choose one of the  subareas to delete the publication.');
```

```
send('<P>');
send('<CENTER> ');

send('<TABLE BORDER=5 CELLPADDING=5>');

send('<FORM METHOD = POST ACTION= ');
send('"http://131.120.39.65/cgi-win/faculty/dpub2sub.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<INPUT TYPE="HIDDEN" NAME="PubTitle" VALUE="'+PubTitle+'">');

send('<TR><TD ALIGN="CENTER"><SELECT NAME="ResearchSubAreaTitle"
TYPE="text" SIZE=1>');

  with Query1 do
   begin
    close;
    SQL.Add('SELECT RES_SUBA.ResearchSubAreaTitle');
    SQL.Add('FROM RES_SUBA');
    SQL.Add('WHERE RES_SUBA.ResearchAreaTitle = '" + ResearchAreaTitle + '"');
    open;

    first;  {puts cursor on first record in answer table}

    while not EOF do
     begin
       send('<OPTION VALUE= "'+FieldByName('ResearchSubAreaTitle').AsString+'">');
       send(FieldByName('ResearchSubAreaTitle').AsString);
       next;  {puts cursor on next record}
     end;
    close;
   end;

send('</SELECT></TD></TR>');

send('<TR><TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Submit
Information"></TD>');
send('</FORM>');

send('<FORM method=post action="'+
   'http://131.120.39.65/cgi-win/faculty/catalog.exe">');
send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
send('<TR><TD ALIGN="CENTER"><input type="submit" value="Cancel, Return to
Catalog Menu"></TD>');
```

```
      send('</form>');
      send('</TABLE>');

 end  {end subareas = yes}

else {else no subarea}

begin
    with Table2 do     {puts cursor on correct record in PUBAREA table}
        begin
          open;
          SetKey;
          FieldByName('PubTitle').AsString := PubTitle;
          FieldByName('ResearchAreaTitle').AsString := ResearchAreaTitle;
          GotoKey;
         end;
     if (Table2.GoToKey = True) then
     begin
       with Query1 do
          begin
           close;
           SQL.clear;
           sql.add('DELETE FROM PUBAREA');
           sql.add('WHERE (PubTitle = "' + PubTitle + '") ');
           sql.add('AND (ResearchAreaTitle = "' + ResearchAreaTitle + '") ');
           ExecSQL;
          end;

     send('<center><h2>Publication deleted from selected research area</h2>');
     end
     else
     begin
       send('<h3>Publication does not exist on selected research area.');
       send('<BR>');
       send('Verify your selection and try again.</h3>');
      end;

   send('<P>');
   sendHR;
   send('<P>');

   send('<center>');
   send('<FORM method=post action= ');
```

```
      send('</form>');
      send('</TABLE>');

 end  {end subareas = yes}

else {else no subarea}

begin
    with Table2 do     {puts cursor on correct record in PUBAREA table}
        begin
          open;
          SetKey;
          FieldByName('PubTitle').AsString := PubTitle;
          FieldByName('ResearchAreaTitle').AsString := ResearchAreaTitle;
          GotoKey;
         end;
     if (Table2.GoToKey = True) then
     begin
       with Query1 do
          begin
           close;
           SQL.clear;
           sql.add('DELETE FROM PUBAREA');
           sql.add('WHERE (PubTitle = "' + PubTitle + '") ');
           sql.add('AND (ResearchAreaTitle = "' + ResearchAreaTitle + '") ');
           ExecSQL;
          end;

     send('<center><h2>Publication deleted from selected research area</h2>');
     end
     else
     begin
       send('<h3>Publication does not exist on selected research area.');
       send('<BR>');
       send('Verify your selection and try again.</h3>');
      end;

   send('<P>');
   sendHR;
   send('<P>');

   send('<center>');
   send('<FORM method=post action= ');
```

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```
    send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
    send('<input type="submit" value= "Catalog Menu"> ');
    send('</form> ');
    send('</CENTER>');

 end; {end else of no subareas exist}


   send( '</BODY></HTML>' );
   closeStdout;
   closeApp(application);
  end;
 end;


end.
```

{If Pub Is Being Deleted From A SubArea}

```
unit Dpub_sub;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Query1: TQuery;
    DataSource2: TDataSource;
    Table1: TTable;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation
```

```
{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
ResearchSubAreaTitle :string;
PubTitle          :string;
FacultyCode        :string;

begin

with CGIEnvData1 do
 begin
  {required when this program runs under WebSite}
  webSiteINIFilename := paramstr(1);
  application.onException := cgiErrorHandler;
  application.processMessages;

  createStdout;
  sendPrologue;


  {receive input fields from HTML form}
  ResearchSubAreaTitle  := getSmallField( 'ResearchSubAreaTitle' );
  PubTitle            := getSmallField( 'PubTitle' );
  Facultycode          := getSmallfield('FacultyCode');

  send( '<HTML><HEAD>' );
  sendTitle( 'Delete Pub From Research SubArea Menu' );
  send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

  with Table1 do    {puts cursor on correct record in table}
     begin
       open;
       SetKey;
       FieldByName('PubTitle').AsString := PubTitle;
       FieldByName('ResearchSubAreaTitle').AsString := ResearchSubAreaTitle;
       GotoKey;
      end;
   if (Table1.GoToKey = True) then
   begin
    with Query1 do
      begin
       close;
```

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```
        SQL.clear;
        sql.add('DELETE FROM PUBSAREA');
        sql.add('WHERE (PubTitle = '" + PubTitle + "') ');
        sql.add('AND (ResearchSubAreaTitle = '" + ResearchSubAreaTitle + "') ');
        ExecSQL;
      end;
      send('<center><h3>Your Publication was successfully');
      send('deleted from the selected research subarea!</h3>');
  end
  else
  begin
    send('<h3>Publication does not exist on selected research subarea.');
    send('<BR>');
    send('Verify your selection and try again</h3>');
  end;

  send('<P>');
  sendHR;
  send('<P>');

  send('<center> ');
  send('<FORM method=post action= ');
  send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
  send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
  send('<input type="submit" value= "Catalog Menu"> ');
  send('</form> ');
  send('</CENTER>');
  send( '</BODY></HTML>' );

  closeStdout;
  closeApp(application);
 end;
end;

end.

{IF Pub is Being Deleted From Both Research Page And Area}
unit Dpubbot1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
```

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```
    Forms, Dialogs, DBTables, DB, Cgi;

  type
    TForm1 = class(TForm)
      CGIEnvData1: TCGIEnvData;
      DataSource1: TDataSource;
      Table1: TTable;
      DataSource2: TDataSource;
      Query1: TQuery;
      DataSource3: TDataSource;
      Query2: TQuery;
      DataSource4: TDataSource;
      DataSource5: TDataSource;
      Table2: TTable;
      Table3: TTable;
      procedure FormCreate(Sender: TObject);
    private
      { Private declarations }
    public
      { Public declarations }
    end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
ResearchAreaTitle    :string;
PubTitle             :string;
SubAreasExist        :string;
FacultyCode          :string;

begin
 with CGIEnvData1 do
  begin
   {required when this program runs under WebSite}
   webSiteINIFilename := paramstr(1);
   application.onException := cgiErrorHandler;
   application.processMessages;
```

```
      createStdout;
      sendPrologue;

      {receive input fields from HTML form}
      ResearchAreaTitle  := getSmallField( 'ResearchAreaTitle' );
      PubTitle          := getSmallField( 'PubTitle' );
      FacultyCode        := getSmallField('Facultycode');

      send( '<HTML><HEAD>' );
      sendTitle( 'Delete Pub From Research Area' );
      send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

      with Table1 do   {Search Research Area Table for record}
         begin
           open;
           FindKey([ResearchAreaTitle]);
         end;

     SubAreasExist := Table1.FieldByName('SubAreas').AsString;

    If SubAreasExist = 'Yes' then
    begin
       send('The research area you selected to delete the publication from has research.');
       send('subareas. Choose one of the  subareas to delete the publication.');

       send('<P>');
       send('<CENTER> ');

       send('<TABLE BORDER=5 CELLPADDING=5>');

       send('<FORM METHOD = POST ACTION= ');
       send('"http://131.120.39.65/cgi-win/faculty/dboth_rr.exe">');
       send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
       send('<INPUT TYPE="HIDDEN" NAME="PubTitle" VALUE="'+PubTitle+'">');

       send('<TR><TD ALIGN="CENTER"><SELECT NAME="ResearchSubAreaTitle"
    TYPE="text" SIZE=1>');

       with Query1 do
        begin
          close;
          SQL.Add('SELECT RES_SUBA.ResearchSubAreaTitle');
          SQL.Add('FROM RES_SUBA');
```

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```
        SQL.Add('WHERE RES_SUBA.ResearchAreaTitle =  "' + ResearchAreaTitle + '"');
        open;
        first;  {puts cursor on first record in answer table}

        while not EOF do
         begin
            send('<OPTION VALUE= "'+FieldByName('ResearchSubAreaTitle').AsString+'">');
            send(FieldByName('ResearchSubAreaTitle').AsString);
            next;  {puts cursor on next record}
          end;
         close;
        end;

    send('</SELECT></TD></TR>');

    send('<TR><TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Submit
Information"></TD>');
    send('</FORM>');

    send('<FORM method=post action="'+
      'http://131.120.39.65/cgi-win/faculty/catalog.exe">');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
    send('<TR><TD ALIGN="CENTER"><input type="submit" value="Cancel, Return to
Catalog Menu"></TD>');
    send('</form>');
    send('</TABLE>');
end   {end subareas = Yes}

else {else no subarea}

begin   {Delete Account from PagePub and PubArea table}

    with Table2 do    {puts cursor on correct record in PagePUB table}
        begin
          open;
          SetKey;
          FieldByName('PubTitle').AsString := PubTitle;
          FieldByName('FacultyCode').AsString := FacultyCode;
          GotoKey;
        end;

    with Table3 do    {puts cursor on correct record in PUBAREA table}
        begin
```

```
            open;
            SetKey;
            FieldByName('PubTitle').AsString := PubTitle;
            FieldByName('ResearchAreaTitle').AsString := ResearchAreaTitle;
            GotoKey;
          end;


    if (Table2.GoToKey = True) and (Table3.GoToKey = False) then

    begin   {User does not have pub on research page}
       with Query1 do
        begin
         close;
         SQL.clear;
         sql.add('DELETE FROM PAGEPUB ');
         sql.add('WHERE (PubTitle = "' + PubTitle + '") ');
         sql.add('AND (FacultyCode = "' + FacultyCode + '") ');
         ExecSQL;
        end;

        send('<h3>Publication deleted from selected research page. Publication');
        send('was not found in selected research area, therefore, there was');
        send('nothing to delete. Please verify selection and try again.</h3>');


        send('<P>');

        send('<center> ');
        send('<FORM method=post action= ');
        send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
        send('<INPUT TYPE="HIDDEN" NAME="FacultyCode"
VALUE="'+FacultyCode+'">');
        send('<input type="submit" value= "Catalog Menu"> ');
        send('</form> ');
        send('</CENTER>');
    end
    else
      if (Table2.GoToKey = False) and (Table3.GoToKey = True) then

      begin   {User does not have pub on research page}
        with Query2 do
          begin
```

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```
          close;
          SQL.clear;
          sql.add('DELETE FROM PUBAREA');
          sql.add('WHERE (PubTitle = "' + PubTitle + '") ');
          sql.add('AND (ResearchAreaTitle = "' + ResearchAreaTitle + '") ');
          ExecSQL;
        end;

    send('<h3>Publication deleted from selected research area. ');
    send('Publication was not found on your research page, therefore,');
    send('there was nothing to delete.</h3>');

   send('<P>');

   send('<center> ');
   send('<FORM method=post action= ');
   send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
   send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
   send('<input type="submit" value= "Catalog Menu"> ');
   send('</form> ');
   send('</CENTER>');
end
else
if (Table2.GoToKey = True) and (Table3.GoToKey = True) then

  begin   {User has pub in both tables}

    with Query1 do
       begin
         close;
         SQL.clear;
         sql.add('DELETE FROM PAGEPUB ');
         sql.add('WHERE (PubTitle = "' + PubTitle + '") ');
         sql.add('AND (FacultyCode = "' + FacultyCode + '") ');
         ExecSQL;
       end;

    with Query2 do
       begin
         close;
         SQL.clear;
         sql.add('DELETE FROM PUBAREA');
         sql.add('WHERE (PubTitle = "' + PubTitle + '") ');
```

```
            sql.add('AND (ResearchAreaTitle = "' + ResearchAreaTitle + '") ');
            ExecSQL;
          end;

        send('<h2>Publication deleted from research page and selected');
        send('research area.</h2>');

        sendHR;
        send('<P>');

        send('<center> ');
        send('<FORM method=post action= ');
        send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
        send('<INPUT TYPE="HIDDEN" NAME="FacultyCode"
VALUE="'+FacultyCode+'">');
        send('<input type="submit" value= "Catalog Menu"> ');
        send('</form> ');
        send('</CENTER>');
      end
      else
        begin

        send('<h2>The publication does not exist on selected research area');
        send('and page, therefore, there is nothing to delete.  Please verify');
        send('your selections and try again.</h2>');

        send('<P>');

        send('<CENTER>');
        send('<FORM method=post action= ');
        send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
        send('<INPUT TYPE="HIDDEN" NAME="FacultyCode"
VALUE="'+FacultyCode+'">');
        send('<input type="submit" value= "Catalog Menu"> ');
        send('</form> ');
        send('</CENTER>');
      end

  end; {end else of no subareas exist}

  send( '</BODY></HTML>' );

  closeStdout;
```

```
    closeApp(application);
  end;
end;

end.
```

{If Pub Is Being Deleted From Both Research Page and Subarea}
```
unit Dbothrr;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    DataSource1: TDataSource;
    Query1: TQuery;
    DataSource2: TDataSource;
    Query2: TQuery;
    DataSource3: TDataSource;
    Table1: TTable;
    DataSource4: TDataSource;
    Table2: TTable;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
ResearchSubAreaTitle :string;
```

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```
PubTitle          :string;
FacultyCode        :string;

begin

with CGIEnvData1 do
 begin
  {required when this program runs under WebSite}
  webSiteINIFilename := paramstr(1);
  application.onException := cgiErrorHandler;
  application.processMessages;

   createStdout;
   sendPrologue;

  {receive input fields from HTML form}
  ResearchSubAreaTitle  := getSmallField( 'ResearchSubAreaTitle' );
  PubTitle             := getSmallField( 'PubTitle' );
  Facultycode           := getSmallfield('FacultyCode');

  send( '<HTML><HEAD>' );
  sendTitle( 'Delete Pub From Research SubArea Menu' );
  send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

  with Table1 do    {puts cursor on correct record in PagePUB table}
     begin
        open;
        SetKey;
        FieldByName('PubTitle').AsString := PubTitle;
        FieldByName('FacultyCode').AsString := FacultyCode;
        GotoKey;
     end;

  with Table2 do    {puts cursor on correct record in PUBSAREA table}
     begin
        open;
        SetKey;
        FieldByName('PubTitle').AsString := PubTitle;
        FieldByName('ResearchSubAreaTitle').AsString := ResearchSubAreaTitle;
        GotoKey;
     end;
```

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```
if (Table1.GoToKey = True) and (Table2.GoToKey = False) then

begin   {User does not have pub on research page}
   with Query1 do
    begin
     close;
     SQL.clear;
     sql.add('DELETE FROM PAGEPUB ');
     sql.add('WHERE (PubTitle = "' + PubTitle + '") ');
     sql.add('AND (FacultyCode = "' + FacultyCode + '") ');
     ExecSQL;
    end;

    send('<h3>Publication deleted from selected research page. Publication');
    send('was not found in selected research subarea, therefore, there was');
    send('nothing to delete. Please verify selection and try again.</h3>');


    send('<P>');

    send('<center> ');
    send('<FORM method=post action= ');
    send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode"
VALUE="'+FacultyCode+'">');
    send('<input type="submit" value= "Catalog Menu"> ');
    send('</form> ');
    send('</CENTER>');
   end
   else
    if (Table1.GoToKey = False) and (Table2.GoToKey = True) then

     begin   {User does not have pub on research page}
       with Query2 do
         begin
          close;
          SQL.clear;
          sql.add('DELETE FROM PUBSAREA');
          sql.add('WHERE (PubTitle = "' + PubTitle + '") ');
          sql.add('AND (ResearchSubAreaTitle = "' + ResearchSubAreaTitle + '") ');
          ExecSQL;
         end;
```

```
        send('<h3>Publication deleted from selected research subarea. ');
        send('Publication was not found on your research page, therefore,');
        send('there was nothing to delete.</h3>');

    send('<P>');

    send('<center> ');
    send('<FORM method=post action= ');
    send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
    send('<INPUT TYPE="HIDDEN" NAME="FacultyCode" VALUE="'+FacultyCode+'">');
    send('<input type="submit" value= "Catalog Menu"> ');
    send('</form> ');
    send('</CENTER>');
end
else
 if (Table1.GoToKey = True) and (Table2.GoToKey = True) then

   begin   {User has pub in both tables}

     with Query1 do
        begin
          close;
          SQL.clear;
          sql.add('DELETE FROM PAGEPUB ');
          sql.add('WHERE (PubTitle = "' + PubTitle + '") ');
          sql.add('AND (FacultyCode = "' + FacultyCode + '") ');
          ExecSQL;
        end;

     with Query2 do
        begin
          close;
          SQL.clear;
          sql.add('DELETE FROM PUBSAREA');
          sql.add('WHERE (PubTitle = "' + PubTitle + '") ');
          sql.add('AND (ResearchSubAreaTitle = "' + ResearchSubAreaTitle + '") ');
          ExecSQL;
        end;

     send('<h2>Publication deleted from research page and selected');
     send('research subarea.</h2>');

   sendHR;
```

```
        send('<P>');

        send('<center> ');
        send('<FORM method=post action= ');
        send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
        send('<INPUT TYPE="HIDDEN" NAME="FacultyCode"
  VALUE="'+FacultyCode+'">');
        send('<input type="submit" value= "Catalog Menu"> ');
        send('</form> ');
        send('</CENTER>');
      end
      else
        begin

        send('<h2>The publication does not exist on selected research subarea');
        send('and page, therefore, there is nothing to delete.  Please verify');
        send('your selections and try again.</h2>');

        send('<P>');

        send('<CENTER>');
        send('<FORM method=post action= ');
        send('"http://131.120.39.65/cgi-win/faculty/catalog.exe"> ');
        send('<INPUT TYPE="HIDDEN" NAME="FacultyCode"
  VALUE="'+FacultyCode+'">');
        send('<input type="submit" value= "Catalog Menu"> ');
        send('</form> ');
        send('</CENTER>');
      end;

    send( '</BODY></HTML>' );

    closeStdout;
    closeApp(application);
  end;
  end;

end.
```

C. SYSTEM ADMINISTRATOR SCRIPTS

1. System Administrator Menu

```
unit Syscat1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, Cgi, DB, DBTables;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
begin

with CGIEnvData1 do
begin
  {required when this program runs under WebSite}
  webSiteINIFilename := paramstr(1);
  application.onException := cgiErrorHandler;
  application.processMessages;

  {standard dynamic HTML header information}
  createStdout;
  sendPrologue;
```

```
send( '<HTML><HEAD>' );
sendTitle( 'Main Menu' );
send( '</HEAD><BODY BGCOLOR="ADEAEA">' );
send ('<center><H1>Main Menu</H1></center>');

send('<P>');
sendHR;
send('<P>');
send('<H3>Maintain Accounts:</H3>');

send('<CENTER> ');
send('<TABLE BORDER=5 CELLPADDING=5>');

  send('<TR>');
  send('<FORM METHOD = POST  ACTION= ');
  send('"http://131.120.39.65/cgi-win/sysad/sel_acc.exe">');
  send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Add">');
  send('</TD></FORM>');

  send('<FORM METHOD = POST  ACTION= ');
  send('"http://131.120.39.65/cgi-win/sysad/sel_lst.exe">');
  send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Modify">');
  send('</TD></FORM>');

  send('<FORM METHOD = POST  ACTION= ');
  send('"http://131.120.39.65/cgi-win/sysad/bsel_lst.exe">');
  send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Browse">');
  send('</TD></FORM>');

  send('<FORM METHOD = POST  ACTION= ');
  send('"http://131.120.39.65/cgi-win/sysad/dsel_lst.exe">');
  send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Delete">');
  send('</TD></FORM>');


send('</TR></TABLE></CENTER>');

send('<P>');
sendHR;
send('<P>');

send('<H3>Maintain Faculty Research Areas/SubAreas:</H3>');
send('<CENTER> ');
```

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```
send('<TABLE BORDER=5 CELLPADDING=5>');
send('<TR>');
send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/sarea_yn.exe">');
send('<TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Add"></TD>');
send('</FORM>');

send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/area_ls.exe">');
send('<TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Modify"></TD>');
send('</FORM>');

send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/brs_als.exe">');
send('<TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Browse"></TD>');
send('</FORM>');

send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/darea_ls.exe">');
send('<TD ALIGN="CENTER">');
send('<INPUT TYPE=SUBMIT VALUE="Delete"></TD>');
send('</FORM>');

send('</TR></TABLE></CENTER>');

send('<P>');
sendHR;
send('<P>');

send('<H3>Maintain Research Centers/Labs:</H3>');
send('<CENTER> ');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<TR>');
send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/alab_fm.exe">');
send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Add">');
send('</TD></FORM>');

send('<FORM METHOD = POST  ACTION= ');
```

```
send('"http://131.120.39.65/cgi-win/sysad/mlab_lst.exe">');
send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Modify">');
send('</TD></FORM>');

send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/brs_lab.exe">');
send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Browse">');
send('</TD></FORM>');

send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/dlab_lst.exe">');
send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Delete">');
send('</TD></FORM>');

send('</TR></TABLE></CENTER>');

send('<P>');
sendHR;
send('<P>');

send('<H3>Maintain Research Page:</H3>');

send('<CENTER> ');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<TR>');
send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/apgform.exe">');
send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Add">');
send('</TD></FORM>');

send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/mpge_ls.exe">');
send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Modify">');
send('</TD></FORM>');

send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/brs_pge.exe">');
send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Browse">');
send('</TD></FORM>');

send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/dpge_ls.exe">');
```

```
send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Delete">');
send('</TD></FORM>');

send('</TR></TABLE></CENTER>');

send('<P>');
sendHR;
send('<P>');

send('<H3>Maintain Research Sponsors:</H3>');

send('<CENTER> ');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<TR>');
send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/aspon_fm.exe">');
send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Add">');
send('</TD></FORM>');

send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/brs_lst.exe">');
send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Browse">');
send('</TD></FORM>');

send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/dspo_lst.exe">');
send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Delete">');
send('</TD></FORM>');

send('</TR></TABLE></CENTER>');
send('<P>');
sendHR;
send('<P>');

send('<H3>Maintain Publications:</H3>');

send('<CENTER> ');
send('<TABLE BORDER=5 CELLPADDING=5>');

send('<TR>');
send('<FORM METHOD = POST  ACTION= ');
send('"http://131.120.39.65/cgi-win/sysad/pub_rrb.exe">');
```

```
        send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Add"></TD>');
        send('</FORM>');

        send('<FORM METHOD = POST  ACTION= ');
        send('"http://131.120.39.65/cgi-win/sysad/brs_pub.exe">');
        send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Browse"></TD>');
        send('</FORM>');

        send('<FORM METHOD = POST  ACTION= ');
        send('"http://131.120.39.65/cgi-win/sysad/dpub_rrb.exe">');
        send('<TD ALIGN="CENTER"><INPUT TYPE=SUBMIT VALUE="Delete"></TD>');
        send('</FORM>');

        send('</TR></TABLE></CENTER>');

        send('<P>');
        sendHR;
        send('<P>');

        send('<H3>Maintain Faculty Information:</H3>');

        send('<CENTER> ');
        send('<TABLE BORDER=5 CELLPADDING=5>');

        send('<TR>');
        send('<FORM METHOD = POST  ACTION= ');
        send('"http://131.120.39.65/cgi-win/sysad/fac_lst.exe">');
        send('<TD><INPUT TYPE=SUBMIT VALUE="Modify"></TD>');
        send('</FORM>');

        send('<FORM METHOD = POST  ACTION= ');
        send('"http://131.120.39.65/cgi-win/sysad/brs_fac.exe">');
        send('<TD><INPUT TYPE=SUBMIT VALUE="Browse"></TD>');
        send('</FORM>');
        send('</TR></TABLE></CENTER>');

      send( '</BODY></HTML>' );
     closeStdout;
     closeAPP(application);
    end;
   end;
  end.
```

2. Add Accounts

```pascal
unit Sel_acc1;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
begin

  with CGIEnvData1 do
  begin
    {required when this program runs under WebSite}
    webSiteINIFilename := paramstr(1);
    application.onException := cgiErrorHandler;
    application.processMessages;

    createStdout;
    sendPrologue;

    send( '<HTML><HEAD>' );
    sendTitle( 'Select Account Type' );
    send( '</HEAD><BODY BGCOLOR="ADEAEA">' );
```

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```
      send ('<H2>Choose the type of account you want to add.</H2>');
      send('<P>');

      send('<Center>');
      send('<FORM method=post action=');
      send('"http://131.120.39.65/cgi-win/sysad/ad_accfm.exe">');
      send('<TABLE BORDER=5 CELLPADDING=5>');

      send('<TR><td><input type="radio" checked name="AccountType" ');
      send('value="FacAcc">Faculty Account');
      send('<input type="radio" name="AccountType" value="SysAcc">Sys Admin Account</td>');

      send('</TABLE> ');

      send('<input type="submit" value="Send Reply">');
      send('</form>');

      send('<P>');
      sendHR;
      send('<p>');

      send('<FORM method=post action=');
      send('"http://131.120.39.65/cgi-win/sysad/syscat.exe">');
      send('<input type="submit" value="Cancel, Return to Main Menu">');
      send('</form>');
      send('</CENTER>');

     send('</BODY></HTML>' );
     closeStdout;
     closeApp( application );
    end;

  end;
end.


{Add Accounts Forms}
unit Adaccfm;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, Cgi;
```

```pascal
type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);
var
  AccountType   : String;

begin

  with CGIEnvData1 do
  begin
    {required when this program runs under WebSite}
    webSiteINIFilename := paramstr(1);
    application.onException := cgiErrorHandler;
    application.processMessages;

    {standard dynamic HTML header information}
    createStdout;
    sendPrologue;

    AccountType := getSmallField('AccountType');

    send( '<HTML><HEAD>' );
    sendTitle( 'Add Faculty Account' );
    send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

    if AccountType = 'FacAcc' then
    begin
      send ('<center><H2>Add Faculty Account</H2></center>');
```

```
  send('<center> ');
  send('<FORM method=post action= ');
  send('"http://131.120.39.65/cgi-win/sysad/addf_acc.exe"> ');
  send('<INPUT TYPE="HIDDEN" NAME="AccountType" VALUE="'+AccountType+'">');
  send('<TABLE BORDER=5 CELLPADDING=5> ');

  send('<TR><TD>Faculty Code:</TD><TD><input type="text" ');
    send('name="FacultyCode" size=5 maxlength=5></TD> ');
  send('<TR><TD>Password:</TD><TD><input type="password" ');
    send('name="Pwd" size=10 maxlength=10> </td> ');
  send('<TR><TD>Verify Password:</TD><TD><input type="password" ');
    send('name="Pwd2" size=10 maxlength=10> </TD> ');

  send('</TABLE> ');
  send('<P>');

  send('<input type="submit" value= "Add Account"> ');
  send('<input type="reset" value="Clear Form">');
  send('</form> ');
end
else
begin
  send ('<center><H2>Add System Admin Account</H2></center>');
  send('<center> ');
  send('<FORM method=post action=');
  send('"http://131.120.39.65/cgi-win/sysad/adds_acc.exe"> ');
  send('<INPUT TYPE="HIDDEN" NAME="AccountType" VALUE="'+AccountType+'">');
  send('<TABLE BORDER=5 CELLPADDING=5> ');

  send('<TR><TD>LoginID:</TD><TD><input type="text" ');
    send('name="LoginID" size=10 maxlength=10></TD> ');
  send('<TR><TD>Password:</TD><TD><input type="password" ');
    send('name="Password" size=10 maxlength=10> </td> ');
  send('<TR><TD>Verify Password:</TD><TD><input type="password" ');
    send('name="Password2" size=10 maxlength=10> </TD> ');

  send('</TABLE> ');
  send('<P>');

  send('<input type="submit" value= "Add Account"> ');
  send('<input type="reset" value="Clear Form">');
  send('</form> ');
end;
```

```
    sendHR;
    send('<FORM method=post action=');
    send('"http://131.120.39.65/cgi-win/sysad/syscat.exe">');
    send('<input type="submit" value="Cancel, Return to Main Menu ">');
    send('</form>');
    send('</CENTER>');
    send('</BODY></HTML>');

    closeStdout;
    closeAPP(application);
    end;
  end;

end.

{Add Faculty Account to Table}
unit Addfacc;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
    CGIEnvData1: TCGIEnvData;
    Table1: TTable;
    DataSource1: TDataSource;
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.DFM}
```

```
procedure TForm1.FormCreate(Sender: TObject);

var
  FacultyCode : string;
  Pwd         : string;
  Pwd2        : string;
  AccountType : string;

begin

with CGIEnvData1 do
begin
  {required when this program runs under WebSite}
  webSiteINIFilename := paramstr(1);
  application.onException := cgiErrorHandler;
  application.processMessages;

  {HTML page header info}
  createStdout;
  sendPrologue;

  FacultyCode := getSmallField( 'FacultyCode' );
  Pwd         := getSmallField( 'Pwd' );
  Pwd2        := getSmallField( 'Pwd2' );
  AccountType := getSmallfield('AccountType');

  send( '<HTML><HEAD>' );
  sendTitle( 'Add Faculty Account' );
  send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

  with Table1 do
    begin
      open;
      SetKey;
      FieldByName('FacultyCode').AsString := FacultyCode;
      GotoKey;
    end;

if (Table1.GoToKey = True) or (FacultyCode = CGINotFound) then

  begin
    send('<h3>Faculty code already exists or you did not enter one.');
    send('Please try again.</h3>');
```

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```
    send('<p>');
    sendHR;
    send('<p>');
    send('<center>');
    send('<FORM METHOD=POST ACTION=');
    send('"http://131.120.39.65/cgi-win/sysad/ad_accfm.exe">');
    send('<INPUT TYPE="HIDDEN" NAME="AccountType" VALUE="'+AccountType+'">');
    send('<INPUT TYPE=SUBMIT VALUE="Return to Faculty Account Form">');
    send('</FORM>');
    send('</CENTER>');
  end
  else  {valid FacultyCode chosen}
  begin
   if Pwd <> Pwd2 then
   begin              {passwords don't agree }
     send('<h2>"Password Mismatch"!</h2>');
     send('<h3>Please verify password choice, and try again.</h3>');
     send('<p>');
     sendHR;
     send('<p>');
     send('<center>');
     send('<FORM METHOD=POST ACTION=');
     send('"http://131.120.39.65/cgi-win/sysad/ad_accfm.exe">');
     send('<INPUT TYPE="HIDDEN" NAME="AccountType"
VALUE="'+AccountType+'">');
     send('<INPUT TYPE=SUBMIT VALUE="Return To Faculty Account Form">');
     send('</FORM>');
     send('</CENTER>');
    end
    else {good faculty account}
    begin
     Table1.AppendRecord([FacultyCode, Pwd]);
     Table1.close;
     send('<h3>The account information was successfully entered!</h3>');
     send('<P>');
     sendHR;
     send('<p>');
     send('<center>');
     send('<FORM METHOD=POST ACTION=');
     send('"http://131.120.39.65/cgi-win/sysad/syscat.exe">');
     send('<INPUT TYPE=SUBMIT VALUE="Return To Main Menu">');
     send('</FORM>');
     send('</CENTER>');
```

```
      end;
      end;
    send( '</BODY></HTML>' );
    closeStdout;
    closeApp(application);
  end;

 end;
end.
```

{Add System Account to Table}
unit Addsacc;

interface

uses
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
  Forms, Dialogs, DB, DBTables, Cgi;

type
  TForm1 = class(TForm)
   CGIEnvData1: TCGIEnvData;
   DataSource1: TDataSource;
   Table1: TTable;
   procedure FormCreate(Sender: TObject);
  private
   { Private declarations }
  public
   { Public declarations }
  end;

var
 Form1: TForm1;

implementation

{$R *.DFM}

procedure TForm1.FormCreate(Sender: TObject);

var
 LoginID   : string;
 Password   : string;

```pascal
    Password2      : string;
    AccountType : string;
begin

  with CGIEnvData1 do
  begin
    {required when this program runs under WebSite}
    webSiteINIFilename := paramstr(1);
    application.onException := cgiErrorHandler;
    application.processMessages;

    {HTML page header info}
    createStdout;
    sendPrologue;

    LoginID := getSmallField( 'LoginID' );
    Password      := getSmallField( 'Password' );
    Password2      := getSmallField( 'Password2' );
    AccountType := getSmallfield('AccountType');

    send( '<HTML><HEAD>' );
    sendTitle( 'Add System Account' );
    send( '</HEAD><BODY BGCOLOR="ADEAEA">' );

    with Table1 do
       begin
         open;
         SetKey;
         FieldByName('LoginID').AsString := LoginID;
         GotoKey;
        end;
    if (Table1.GoToKey = True) or (LoginID = CGINotFound) then
      begin
        send('<h3>LoginID already exists or you did not enter one.');
        send('Please try again.</h3>');
        send('<P>');
        sendHR;
        send('<p>');
        send('<center>');
        send('<FORM METHOD=POST ACTION=');
        send('"http://131.120.39.65/cgi-win/sysad/ad_accfm.exe">');
        send('<INPUT TYPE="HIDDEN" NAME="AccountType" VALUE="'+AccountType+'">');
        send('<INPUT TYPE=SUBMIT VALUE="Return to Sys Admin Account Form">');
```

```
          send('</FORM>');
          send('</CENTER>');
      end
    else  {valid LoginID chosen}
    begin
      if Password <> Password2 then
      begin                {passwords don't agree }
        send('<h2>"Password Mismatch"!</h2>');
        send('<h3>Please verify password choice, and try again.</h3>');
        send('<p>');
        sendHR;
        send('<p>');
        send('<center>');
        send('<FORM METHOD=POST ACTION=');
        send('"http://131.120.39.65/cgi-win/sysad/ad_accfm.exe">');
        send('<INPUT TYPE="HIDDEN" NAME="AccountType"
VALUE="'+AccountType+'">');
        send('<INPUT TYPE=SUBMIT VALUE="Return To Sys Admin Account Form">');
        send('</FORM>');
        send('</CENTER>');
      end
      else {good sys Ad account}
      begin
        Table1.AppendRecord([LoginID, Password]);
        Table1.close;
        send('<h3>The account information was successfully entered!</h3>');
        send('<P>');
        sendHR;
        send('<p>');
        send('<center>');
        send('<FORM METHOD=POST ACTION=');
        send('"http://131.120.39.65/cgi-win/sysad/syscat.exe">');
        send('<INPUT TYPE=SUBMIT VALUE="Return To Main Menu">');
        send('</FORM>');
        send('</CENTER>');
      end;
    end;
  send( '</BODY></HTML>' );
  closeStdout;
  closeApp(application);
  end;
end;
end.
```

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